

#### IT Corporation

11315 Sunrise Gold Circle, Suite A Rancho Cordova, CA 95742-6534 Tel. 916.858.2350 Fax. 916.858.2355

A Member of The IT Group

August 17, 1999 IT Project: 782983

Ms. Sundy Lloyd-Connor California Department of Transportation, District 4 Office of Environmental Engineering P.O. Box 23660 Oakland, California 94623-0660

Subject:

Report for the Route 505 and Route 12 Project, Solano County, California

Dear Ms. Lloyd-Connor:

IT Corporation (IT) is pleased to submit this report for environmental site investigation conducted at Route 505 in Vacaville and Route 12 between Suisun City and Rio Vista, Solano County, California. This report is submitted in accordance with Contract No. 43A0012, Task Order 04-0T0301-ET.

If you have any questions, please feel free to contact either of us at your convenience.

Sincerely,

IT CORPORATION

Michael D. Miller, R.G.

Task Order Manager

R. David Smith, R.G.

Project Geologist

Enclosure

#### SITE INVESTIGATION REPORT Route 12 and Route 505 Solano County, California

Route 12 Passing Lane Extension Route 505 Signalization, Lighting, and Widening Solano County, California

Prepared For:

California Department of Transportation
Office of Environmental Engineering
P.O. Box 23660
Oakland, California 94623-0660

Prepared By:

IT Corporation

11315 Sunrise Gold Circle, Suite A
Rancho Cordova, California 95742

Task Order No. 04-0T0301-ET Contract No. 43A0012

August 17, 1999

No. 6886

R. David Smith, R.G.

**Project Geologist** 

Michael D. Miller, R.G. Project Manager

Table of Contents	
1.0 Introduction  1.1 Site Description  1.2 Project History  1.3 Project Objectives  2.0 Site Investigation - Scope and Met  2.1 Pre-Work Site Visit, Work  2.2 Field Investigation  2.3 Laboratory Analyses  3.0 Site Investigation Results  3.1 Soil Conditions  3.2 Analytical Results  4.0 Data Evaluation	1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
List of Tables	
List of Tubics	
Table	Title Inorganic Results - Soil
1 2	Lead Statistical Analyses
2	
List of Figures	
<b>Figure</b> 1 2 to 20	<b>Title</b> Site Location Map Boring Location Maps and Lead Analytical Results
List of Appendices	
Appendix A B C D	Title Permits Drilling and Sampling Procedures Field Forms/General Soil Classifications Laboratory Analytical Reports

### 1.0 Introduction.

This report has been prepared by IT Corporation (IT) to present the results of soil investigation performed by IT on June 18 and June 21, 1999, along Route 12, near Route 113, and along Route 505 in Vacaville, in Solano County, California (Figure 1). The Route 12 site is located 15.5 kilometers east of Suisun City to 6.5 kilometers west of Rio Vista. The Route 505 site is located in the City of Vacaville at Route 505 and the Vaca Valley Parkway. This project was conducted at the request and authorization of Ms. Sundy Lloyd-Connor of the California Department of Transportation (Caltrans) under Task Order No. 04-OT0301-ET (Caltrans, 1999), Contract 43A0012.

## 1.1 Site Description

The field work for this investigation was conducted within Caltrans right-of-way in the existing unpaved shoulder areas of the highway. The project portion of Route 12 is a two-lane conventional highway of rural character. The surrounding land is currently undeveloped and is characterized by open, grass-covered, gently rolling topography with few man-made structures. Historic and current land use is grazing and seasonal wheat production. The project portion of Route 505 is along the shoulder of northbound off-ramp of Route 505 to the Vaca Valley Parkway. The vicnity is semi-rural with light industrial use.

### 1.2 Project History

For the first site (Route 12), Caltrans proposes to lengthen four existing passing lane segments along three segments of Route 12. The existing passing lane segments, two eastbound and two westbound, are from 0.6 to 0.8 kilometers in length. For the second site (Route 505), Caltrans will install traffic signals and lighting at the northbound Route 505 ramps with Vaca Valley Parkway. A portion of the off-ramp is to be widened to two lanes, and the eastbound approach of Vaca Valley Parkway will be widened to proved a left-turn lane into the on-ramp.

There is one known previous environmental investigation near the Route 12 project boundaries that was conducted by IT, for Caltrans, at the northeast intersection of Routes 12 and 113 (IT Corp., 1998). Caltrans was planning to install a dedicated right turn lane over the existing unpaved shoulder of the northeast quadrant of the intersection between Routes 12 and 113 in Solano County. The objective of that investigation was to assess the presence of lead within shallow soils in the project area. Fifteen soil borings were drilled and soil samples collected for analysis of total and

soluble lead. Only 13 of the 60 soil samples collected were reported to contain total lead in excess of 10 times the STLC or 50 ppm. None exceeded the TTLC (1,000 ppm). In general, the higher concentrations of total lead were detected in the shallower samples; with few exceptions, total lead concentrations decreased with increasing depth within each borehole, which is indicative of aerially deposited lead impacted soils near major transportation routes. Only 1 of 13 samples (B13-91) was reported to contain soluble lead (9.4 ppm) in excess of the regulatory level of 5 ppm; therefore, a reanalysis with a DI extraction was requested and the result yielded only 0.072 ppm. IT concluded that, pending a formal statistical analyses, the site soil was likely to meet the criteria set forth in the variance issued to Caltrans by the Department of Toxics and Substance Control (DTSC) for excavated soil re-use within the project area.

## 1.3 Project Objectives

In 1995, DTSC issued Caltrans a variance concerning the handling and reuse of material contaminated by lead from motor vehicle emissions. The purpose of this investigation was to determine if the concentrations of lead in the unpaved shoulder areas of the subject locations meet the criteria of the DTSC variance. Therefore, the objectives of this investigation were to assess the presence and concentration of total inorganic lead in areas where excavation of the existing ground surface is anticipated.

# 2.0 Site Investigation - Scope and Methods\_

To achieve the project objective, the following scope of work was conducted:

- 1. Pre-work Site Visit, Work Plan and Health and Safety Plan Preparation, Permits
- 2. Field Investigation
- 3. Laboratory Analyses
- 4. Site Investigation Report Preparation

# 2.1 Pre-Work Site Visit, Work Plan and H&S Plan, and Permits

A pre-work site visit was conducted at the project site on June 2, 1999. The visit was attended by Mr. Donald Bransford of IT and Ms. Sundy Lloyd-Connor of Caltrans. The Task Order was reviewed, boring locations and USA notifications were marked in paint, and the site visit checklist and completion schedule were discussed and signed.

A Work Plan (IT Corp., 1999a) was prepared to present the scope of work for the soil investigation conducted at the site. The Work Plan was presented for client review prior to finalization and start of field work. A site Health and Safety Plan (IT Corp., 1999b) was prepared in accordance with 29 CFR 1910.120. The Health and Safety Plan included safety procedures for work to be performed at the site, chemical hazard information, site safety officers, and preferred medical emergency locations.

A standard encroachment permit was obtained from the Caltrans Permit Department for work on State Highway Right of Way property. Appendix A contains a copy of the permit. Underground Service Alert was notified of the subsurface investigation prior to initiation of the investigation. No adverse issues were encountered with utility lines in the project area.

### 2.2 Field Investigation

This task included the advancement of 39 soil borings for collection of soil samples. Boring locations were selected by Caltrans to provide data for systematic evaluation of subsurface conditions. The locations of the soil borings are shown in Figures 2 through 20. Drilling and sampling procedures are presented in Appendix B.

The 39 borings were drilled using hand-held augering and sampling equipment. Twenty-eight soil borings were advanced to a depth of approximately 0.9 meters (3 feet) below ground surface (BGS) along Route 12, and 11 soil borings advanced to 0.6 meters (2 feet) BGS along Route 505, a depth expected to allow for characterization of shallow subsurface soils and the materials planned to be excavated. The locations of the borings were along Route 12 (Kilometer Post (KP) 25.0 to 33.4) and Route 505 (KP R2.33), and were generally 1.5 meters (5 feet) from the edge of the roadway pavement. All borings were located within Caltrans right-of-way.

Soil samples were collected from approximately 0.15, 0.3, 0.6, and 0.9 meters (0.5, 1.0, 2.0, and 3.0 feet) BGS at the Route 12 site, and 0.15, 0.3, and 0.6 meters (0.5, 1.0, and 2.0 feet) BGS at the Route 505 site. Two borings along Route 12 could not be drilled to completion. Samples were not collected at five intervals due to bit refusal in gravelly conditions (B2-0.6, -0.9 and B4-0.3, -0.6, -0.9). No groundwater was encountered. Soil samples were collected directly from the hand-auger and the material was placed in sealable ziplock bags. The soil samples were labeled, packaged and stored in an insulated chest for transport under chain-of-custody manifest to Sparger Technology,

a California-certified analytical laboratory in Sacramento, California. Soil samples were analyzed according to the analytical program described in Table 1 and Section 2.3. The borings were not logged for lithologic characteristics, but general soil classifications such as clay, silt, or sand were noted on field logs by the sample technician. The field forms are presented in Appendix C.

Following sample collection, the borings were backfilled with the remaining borehole cuttings. Back-filling of boreholes was supplemented with bentonite chips where necessary. All drilling and sampling equipment was washed prior to use. In addition, to minimize cross-contamination between borings, all appropriate downhole drilling and sampling equipment was washed between borings. Excess soil waste was not anticipated, and no excess drill cuttings were generated.

## 2.3 Laboratory Analyses

The laboratory analytical program and results for specific soil samples is presented in Table 1. The soil samples were submitted to Sparger Technology, a California-certified analytical laboratory within 24 hours of collection. The analyses were conducted on a 48-hour turn-around basis in general accordance with U.S. Environmental Protection Agency (EPA) specified holding times. The analyses were performed in general accordance with the EPA method listed below.

Matrix soil soil	Number of Samples 140 25 5	Analyses  EPA 6010 ICAP Single Element Scan (total lead)  22 CCR 667000 Waste Extraction Test (WET)**  WET with deionized water extraction (DI WET)  EPA 1311 Toxicity Characteristic Leaching Procedure (TCLP) **
soil	8	EPA 1311 Toxicity Characteristic Leaching Procedure (TCLP) **
soil	8	EPA 9045 Soil pH

Soil samples reported to contain total lead in excess of 10 times the Soluble Threshold Limit Concentration (STLC), but less than the Total Limit Threshold Concentration (TTLC), were analyzed using the WET method. Soil samples reported to contain lead in excess of 20 times the STLC were analyzed using the TCLP. IT notified and discussed lead results with the Contract Manager prior to approving WET or TCLP method analyses.

# Site Investigation Results.

General soil classifications are provided in Appendix C. The analytical results of all soil samples are presented in Table 1 and Figures 2 to 17. The laboratory reports are provided in Appendix D.

#### 3.1 Soil Conditions

Along the Route 12 site, the field geologist noted the soil type as roadbase underlain by sandy silt in borings B1 to B9, and roadbase underlain by silty clay in borings B10 to B28. Along the Route 505 site, the soil type was noted as roadbase underlain by silty sand in borings B1-B6, roadbase and gravelly fill in borings B7 to B9, and roadbase underlain by silt with sand in borings B10 and B11. Groundwater was not encountered within the total depth explored in any borehole.

## 3.2 Analytical Results

#### Total Inorganic Lead

Along Route 12, total lead was reported in the soil samples at concentrations ranging from 1.4 to 197 parts per million (ppm). Along Route 505, total lead was reported in the soil samples at concentrations ranging from 4.4 to 510 ppm (Table 1). No total lead results exceeded the Total Limit Threshold Concentration of 1,000 ppm, above which a waste may be characterized as hazardous (Title 22, CCR).

#### Soil pH

Four samples for pH analysis were chosen at random at both the Route 12 and Route 505 sites. The reported pH values exhibited a small range from 6.4 to 6.6 for Route 12 samples, and from 6.5 to 6.7 for Route 505 samples (Table 1).

#### Soluble Lead - WET

Along Route 12, twenty samples reported to contain lead in excess of 10 times the STLC were analyzed for soluble lead using the WET. Along Route 505, five samples reported to contain lead in excess of 10 times the STLC were analyzed by the WET. For both sites, the WET results for soluble lead ranged from 0.52 to 24 ppm. Only five soluble lead results exceeded the STLC of 5.0 ppm (Route 12 B18-0.15 and B27-0.15, and Route 505 B1-0.15, B2-0.15, and B3-0.15 [Table 1]). These samples were re-analyzed for soluble lead using Deionized water in the WET analysis (DI WET). The results ranged from 0.019 to 0.16 ppm (Table 1).

### Soluble Lead - TCLP

Along Route 12, five samples reported to contain lead in excess of 20 times the STLC were analyzed for soluble lead using the TCLP. Along Route 505, three samples reported to contain lead in excess of 20 times the STLC were analyzed by the TCLP. For both sites, the TCLP results for soluble lead ranged from below reporting limits (0.05 ppm) to 2.2 ppm. No soluble lead results obtained from the TCLP exceeded 5.0 ppm (Table 1).

## 4.0 Data Evaluation\_

For Route 12, only 20 of the 107 soil samples collected were reported to contain total lead in excess of 10 or 20 times the STLC (50 or 100 ppm). For Route 505, only 5 of the 33 soil samples collected were reported to contain total lead in excess of 10 or 20 times the STLC (50 or 100 ppm). Table 1 lists the total lead results in "bold" for these samples. No total lead concentrations exceeded the TTLC (1,000 ppm). Along Route 505, the higher concentrations of total lead were detected in the shallower samples; with few exceptions, total lead concentrations decreased with increasing depth within each borehole (Table 1), which is indicative of aerially deposited lead impacted soils near major transportation routes. Relative to the deeper sample intervals, along Route 12, the average of total lead concentrations was only slightly higher in the 0.15 sample interval, which may indicate that the topmost shoulder material is that of newer "clean" fill or roadbase not exposed to many years of aerially deposited lead from vehicle emissions.

IT conducted a statistical evaluation of all total lead analytical data for this project at the request of Caltrans. The statistical evaluation was conducted in general accordance with a guidance document developed by the Caltrans Noise, Air, and Hazardous Waste Management Office dated February 4, 1998 (Caltrans, 1998), and the Supplemental Guidance to Risk Assessment Guidance for Superfund: Volume I - Human Health Evaluation Manual (RAGS/HHEM- USEPA, 1992). Caltrans received a variance from The Department of Toxics and Substance Control (DTSC) which allows, under certain conditions, to excavate, collect, and reuse contaminated soils within existing rights of way. Within the limitations of the variance, soil analytical data is used to determine if and how soil material may be reused.

The statistical evaluation addressed the following items:

- Determination of normal or lognormal distribution of sample data to identify the proper equation for certainty analysis;
- Calculation of mean;
- Calculation of standard deviation;

 Calculation of the 95% Upper Confidence Level (UCL), interpreted as a 95% confidence that the true mean for a given population is no higher than the calculated UCL.

The data was divided into four populations based on the sampling intervals along Route 12 (0.15, 0.3, 0.6, and 0.9 meters) and three populations along Route 505 (0.15, 0.3, and 0.6 meters). Seven populations of lead data were evaluated. Although there were no "non-detects" reported by the lab, "non-detects" would be treated as one-half of the reporting limit in the statistical evaluation. Calculations were performed in EXCEL 97<sup>TM</sup> and were proofed by hand calculation using equations from "Statistical Methods for Environmental Pollution Monitoring", Gilbert, 1987. The equation used for the calculation of the 95% UCL (Caltrans, 1998; USEPA, 1992) was entered into EXCEL 97<sup>TM</sup> and proofed by hand calculation (Gilbert, 1987).

The 95% UCL was calculated using the following equation:

UCL = 
$$\exp(x + 0.5s^2 + (sH/sqrt(n-1)))$$
 (1)

where  $\exp = \text{constant}$  (base of the natural log (LN) = 2.718)

x = mean of the transformed data (LN(concentration))

s = standard deviation of the transformed data

H = H-statistic

n = number of samples

Determination of the H-statistic was accomplished by linear extrapolation between given values (Table A12, p265, Gilbert, 1987). Results of the statistical calculations are provided in Table 2.

Along Route 505, the mean (average) concentrations decreased markedly below the first interval (0.15 meters). The average concentration of total lead in the upper 0.15 meters was 99.5 ppm, and decreased to 8.51 ppm and 8.3 ppm in the bottom sampling intervals. The average concentrations of total lead over the Route 12 sampling intervals ranged from 38 to 10.5 ppm (Table 2).

The 95% UCL (based on equation (1)) is a function of the standard deviation (s), the number of samples (n), and the H-statistic. The H-statistic (Gilbert, 1987) is determined from tabulated values based on s and n. Therefore, the calculated 95% UCL is sensitive to s and n. In general, for high values of n and/or low values of s, the 95% UCL will be close to the mean concentration. In this case, the average for the population is representative. Conversely, for low values of n and/or high values of s, the 95% UCL may be far away from the average, and the 95% UCL cannot be defined

accurately because the uncertainty involved in the sample population is too high. In this case, the lead concentration is not necessarily higher than in other sites, but that more data are required before recommendations can be made based on the statistical evaluation.

Except for the 0-0.15 meter interval along Route 505, the 95% UCLs calculated for all other populations are near the respective mean concentrations (Table 2) and range from 10 to 68 ppm. The 95% UCL calculated for 0-0.15 meter interval along Route 505 (759 ppm) is relatively higher than the mean concentration for that interval but is still much lower than the 1575 ppm allowed by the DTSC variance.

### 5.0 Conclusions.

Caltrans is planning to lengthen four existing passing lane segments along three segments of Route 12. Caltrans is also planning to install traffic signals and lighting at the northbound Route 505 ramps with Vaca Valley Parkway. A portion of the off-ramp is to be widened to two lanes, and the eastbound approach of Vaca Valley Parkway will be widened to proved a left-turn lane into the on-ramp.

The objective of this investigation was to assess and evaluate the presence of lead within shallow soils in the project area to know how site soils may affect Caltrans planning. Twenty-eight borings were drilled and sampled along Route 12, and eleven borings were drilled and sampled along Route 505. Soil samples were collected for analysis of total and, where necessary, soluble lead.

The total lead concentrations ranged from 1.4 to 197 ppm along Route 12, and 4.4 to 510 ppm along Route 505. No total lead results exceeded the TTLC of 1,000 ppm. Only five soluble lead results exceeded 5 ppm; the samples were re-analyzed using a DI WET and the results ranged from 0.019 to 0.16 ppm. Seven populations of total lead were statistically evaluated. Six of the seven populations had a 95% UCL less than 69 ppm. The 0 to 0.15 meter interval along Route 505 had a 95% UCL of 759 ppm. The DTSC variance to Caltrans allows soil under 1,575 ppm to be re-used.

Based on lead results and statistical evaluation, shallow site soils (<0.9 meters) meet the criteria set forth in the variance issued to Caltrans by the Department of Toxics and Substance Control (DTSC) and may be re-used within the project area if Caltrans so chooses.

#### 6.0 References.

Caltrans (California Department of Transportation, District 4), 1999, California Department of Transportation, District 4, Office of Environmental Engineering, Task Order 04-OT0301-ET, dated March 31, 1999, 8p.

Caltrans, 1998, Memorandum on Guidance for Conducting Statistical Evaluation of Lead Data, Noise, Air, and Hazardous Waste Management Office, February 4, 1998.

Gilbert, R.O., "Statistical Methods for Environmental Pollution Monitoring", Van Nostrand Reinhold, New York, New York, 1987.

IT Corporation, 1998, Site Investigation Report, Route 12/113 Interchange, Solano County, California, prepared for Caltrans Task Order 04-244201-EP, Contract 43Y097, December 30, 1998, (IT Corp., 1998).

IT Corporation, 1999a, Work Plan, Environmental Site Investigation, Route 12 and Route 505 Solano County, California, prepared for Caltrans Task Order 04-OT0301-ET, Contract 43A0012, June 17, 1999, (IT Corp., 1999a).

IT Corporation, 1999b, Health and Safety Plan, Environmental Site Investigation, Route 12 and Route 505, Solano County, California, prepared for Caltrans Task Order 04-OT0301-ET, Contract 43A0012, June 17, 1999, (IT Corp., 1999b).

USEPA, 1992, "Supplemental Guidance to RAGS: Calculating the Concentration Term", (OSWER Directive 9285.7-0?), May, 1992.

Tables

TABLE 1
INORGANIC RESULTS - SOIL
Caltrans - Route 12 and Route 505 Investigations

	Boring	Sample Depth			ad	TCLP	9045 pH
Douto	Number	in meters (feet)	Total	WET	DI WET	IOLF	7
Route	B-1	0.15 (0.5)	8.9				6.4
12	B-1	0.10 (0.0/	6.4	***************************************			
i .		0.3 (1) 0.6 (2)	4.0	***************************************		***************************************	
ì		0.9 (3)	5.0	***************************************			<u> </u>
և		0.9 (3)	10				<b>.</b>
ì	B-2	0.15 (0.5)	10 <b>56</b>	3.5			
Ĺ		0.3 (1)		0.0			
Γ	B-3	0.15 (0.5)	6.7		***************************************		
ì		0.3 (1) 0.6 (2)	4.9 9.1				Ţ
. i		0.6 (2)					
1		0.9 (3)	5.2		<del> </del>		
Ī	B-4	0.15 (0.5)	29				
Ì	B-5	0.15 (0.5)	12				***************************************
1	_	0.3 (1) 0.6 (2)	11				
		0.6 (2)	7.4				
1		0.9 (3)	6.5				
ł	B-6	0.15 (0.5) 0.3 (1) 0.6 (2) 0.9 (3)	3.0				
	5-0	0.3 (1)	4.1				
,		0.6 (2)	4.1 5				
		0 9 (3)	5.6				
	B-7	0.15 (0.5)					
	) B-/	0.10 (0.07	6.9 3.6				
	ļ	0.3 (1) 0.6 (2) 0.9 (3)	4.1				
	ļ	0.0 (2)	3.6	***************************************			
		0.9 (3)	3.2				
	B-8	0.15 (0.5)					
		0.3 (1) 0.6 (2)	4.8 1.4				
	İ	0.6 (2)			***************************************		
	l	0.9 (3)	4.8				
	B-9	0.15 (0.5) 0.3 (1) 0.6 (2)	15 25 30 5.5			•••••••••••••••••••••••••••••••••••••••	6.4
		0.3 (1)	25				
	1	0.6 (2)	30				
		0.9 (3)	5.5	25			
	B-10	0.15 (0.5) 0.3 (1) 0.6 (2)	82	2.5			
	i	0.3 (1)	47 11			*****	
	ł	0.6 (2)					•••••
	1 .	0.9 (3)	7.4				
	B-11	0.15 (0.5)	16 <b>85</b>				***************************************
		0.3 (1) 0.6 (2)		2.9			
		0.6 (2)	9.5				
		0.9 (3)	8				
	B-12	0.15 (0.5)	11.0 9.5				
	D-12	***************************************	9.5				
		0.3 (1) 0.6 (2) 0.9 (3)	8.1	***************************************			
	1	0.9 (3)	6.3				
	- B 40	0.5 (0.5)	66	1.5			
	B-13	0.15 (0.5) 0.3 (1) 0.6 (2)	66 62 12 7.4	2.2			
	1	0.3 (1)	12				
	1	0.0 (2)	7 /		_		
		0.9 (3)	1.4	2.7			
	B-14	0.15 (0.5)	00	£.:	***************************************		
	Ì	0.15 (0.5) 0.3 (1) 0.6 (2)	88 22 7.8 6.8			***************************************	<u> </u>
	Ì	0.6 (2)	7.8				
	Ī	0.9 (3)	ı 6.8	1			

TABLE 1
INORGANIC RESULTS - SOIL
Caltrans - Route 12 and Route 505 Investigations

		Ola Danih		Lea	<u>d</u>	TCLP	9045 pH
	Boring	Sample Depth in meters (feet)	Total	WET	DI WET	TOLP	
Route	1,000				*******************************		
Route 12	B-15	0.15 (0.5)	26 71	2.2			<b>†</b>
ontinued	į.	0.3 (1) 0.6 (2)	16	***************************************			
	Ì,	0.6 (2)	6.8				<del> </del>
ļ	·	0.9 (3)	30				
	B-16	0.15 (0.5)	20 <b>62</b>	1.4			
		0.3 (1) 0.6 (2)	04	***************************************			
'		0.6 (2)	24 5.5	,		<del> </del>	6.5
		0.9 (3)	47				
	B-17	0.15 (0.5)	34	***************************************			***************************************
	}	0.3 (1)	140	1.5		ND<0.05	
	ł	0.6 (2)		***************************************			<del>- </del>
		0.9 (3)	19 112	7.1	0.026	0.17	
	B-18	0.15 (0.5)		1.1			
	1	0.3 (1)	63	0.52			
	1	0.6 (2)	89 12				
		0.9 (3)					
	B-19	0.15 (0.5)	26 30 <b>197</b>	***************************************			
		0.3 (1) 0.6 (2) 0.9 (3)	30	1.4	***	0.075	
		0.6 (2)		**************************************			
	1	0.9 (3)	27				
	B-20	0.15 (0.5)	31 8.6				
		0.3 (1) 0.6 (2) 0.9 (3)		***************************************	***************************************		
•		0.6 (2)	6.7				
	1	0.9 (3)	5.9	4.6		0.2	
	B-21	0.15 (0.5)	150	4.6 1.5			
		0.3 (1) 0.6 (2)	97				
	į .	0.6 (2)	11 7.1				
		0.9 (3)	7.1	1.8			
	B-22	0.15 (0.5)	52				
		0.3 (1)	32		•••••		
		0.6 (2)	13 7.6				
		0.9 (3)					
	B-23	0.15 (0.5)	24				
	7	0.3 (1) 0.6 (2)	14				
		0.6 (2)	13				
	ł	0.9 (3)	9.4	2.9			
	B-24	0.15 (0.5)	54				
1		0.3 (1)	16				
	1	0.6 (2)	10 22				
	1	0.3 (1) 0.6 (2) 0.9 (3)	22				
	B-25	0.15 (0.5)	36 37				
		0.3 (1) 0.6 (2) 0.9 (3) 0.15 (0.5) 0.3 (1) 0.6 (2)		2.1			
l	Ì	0.6 (2)	<b>51</b> 15				
8		0.9 (3)	15				
8	B-26	0.15 (0.5)	8.4 5.6 105				
1		0.3 (1)	5.6	0.93		0.065	
1	1	0.6 (2)	105				
1	1	i omiai	1 2/	8.9	0.019		
	B-27	0.15 (0.5) 0.3 (1) 0.6 (2) 0.9 (3)	81 16 21 25				
	"	0.3 (1)	16				
	l	0.6 (2)	21				
1	1	0.9 (3)	25				
N .	B-28		30 20				
1	D-20	0.3 (1)	20			***************************************	6.6
	1	0.6 (2)	1 30			***************************************	
1	l l		11	1			

#### TABLE 1 **INORGANIC RESULTS - SOIL**

Caltrans - Route 12 and Route 505 Investigations

		Sample Depth		Le	ad	TOLD	9045 pH
	Boring	in meters (feet)	Total	WET	DI WET	TCLP	рп
Route	Number		510	24	0.16	2.2	************
Route 505	B-1	0.15 (0.5)	6.9				
1		0.3 (1)		,			
		0.6 (2)	11 133	13	0.085	0.77	
	B-2	0.15 (0.5)	5.5				6.5
j		0.3 (1)	7.0	***************************************			
		0.6 (2)		18	0.11	1.3	
	B-3	0.15 (0.5)	255				
		0.3 (1)	5.8 7.3	***************************************			
		0.6 (2)					
	B-4	0.15 (0.5)	12 6.6				
		0.3 (1) 0.6 (2)					·
	<b>\</b>	0.6 (2)	6.2				<u> </u>
	B-5	0.15 (0.5)	21	***************************************			Ţ
		0.3 (1)	9.4				
	ļ	0.6 (2)	9.7	<u> </u>			
	B-6	0.15 (0.5)	17				1
		0.3 (1)	5.9				6.6
		0.6 (2)	7.4	1			
	B-7	0.15 (0.5)	56	1.0			
	1	0.3 (1)	10				1
		0.6 (2)	11				
	B-8	0.15 (0.5)	<b>68</b> 15	3.5			6.7
	5	0.3 (1)	15				
	1	0.6 (2)	10			<del>                                     </del>	
	B-9	0.15 (0.5)	7.0				***
•	1	0.3 (1)	16	***************************************		***************************************	***************************************
-		0.6 (2)	11			+	
	B-10	0.15 (0.5)	7.9 5.8	,			
	B-10	0.3 (1)	5.8				***************************************
	1	0.6 (2)	6.3			-	6.6
	B-11	0.15 (0.5)	7.6	****			
	D-11	0.3 (1)	6.7				
	Ì	0.3 (1) 0.6 (2)	4.4			<del></del>	
			1000				
TTLC			50	1			
10X STLC				5	5	5	
STLC						<del></del>	
TCLP			100				
PRG				0.05	0.01	0.05	NA NA
Reporting Li	1	ì	1	0.05			

- 1. TTLC = total threshold limit concentration. STLC = soluble threshold limit concentration. WET = waste extraction test. TCLP = toxicity characteristic leaching procedure.
  - DI WET = waste extraction test using deionized water
- 2. Sample depths reported in approximate meters (m) / feet (ft) below the ground surface.
- 3. WET conducted in general accordance with California Title 22 procedures. TCLP extraction and metals analyses conducted in general accordance with U.S. Environmental Protection
- 4. Total metal results reported in milligrams per kilogram. WET and TCLP results reported in milligrams per liter.
- 5. ND = not detected in concentrations exceeding the listed reporting limit.
- 6. Soil samples labeled as follows: 12B1-0.3 Route 12, boring B-1, 0.3-meter depth.
- 7. 10X STLC = 10 times the Soluble Threshold Limit Concentration. Values listed in milligrams per liter.
- 8. PRG = preliminary remediation goal (1998) for residential soil in mg/kg.
- 9. For total lead results, bold results equal or exceed 10X STLC values. Bold and italics results equal or exceed the TTLC.
- 10. For WET and TCLP results, bold results exceed the STLC or TCLP.

# TABLE 2 LEAD STATISTICAL ANALYSES Caltrans - Route 12 and Route 505 Investigations

0.5-ft samples

2-ft samples

						1		
	<b>#</b> 4.03 4	7-1-11	Calubia Load			Total Lead	Total Lead	Soluble Lea
	Total Lead		Soluble Lead		Route 12	ppm	LN(X)	ppm
Route 12	ppm	LN(X)	ppm			0.6 m	LINDY	ppiii
Boring Location	0.15 m				Boring Location		1.39	
B1	8.9	2.19			B1	4.0		
B2	10	2.30			B3	9.1	2.21	
B3	6.7	1.90			B5	7.4	2.00	
B4 .	29	3.37			B6	5.0	1.61	
B5	12	2.48			B7	4.1	1.41	
	3.0	1.10			B8	1.4	0.34	
B6					B9	30	3,40	
B7	6.9	1.93			B10	11	2.40	
B8	3.2	1.16					2.25	
B9	15 _	2.71			B11	9.5		
B10	82	4.41	2.5		B12	8.1	2.09	· ·
B11	16	2.77		·	B13	12	2,48	
B12	11	2.40			B14	7.8	2.05	
	66	4.19	1.5		B15	16	2.77	
B13			2.7		B16	24	3.18	
B14	88	4.48	2./		B17	140	4.94	ND<0.05
B15	26	3.26					4.49	0.52
B16	20	3.00			B18	89		
B17	47	3.85			B19	197	5.28	0.075
B18	112	4.72	0.17		B20	6.7	1.90	
	26	3.26			B21	11	2.40	
B19		3.43			B22	13	2.56	1
B20	31		0.2		B23	13	2.56	
B21	150	5.01			B24	10	2.30	<u> </u>
B22	52	3.95	1.8			51	3.93	2.1
B23	24	3.18			B25			
B24	54	3.99	2.9		B26	105	4.65	0.065
B25	36	3.58			B27	21	3.04	
B26	8.4	2.13			B28	30	3.40	1
	81	4.39	8.9	l.n	gnormal Population			
B27			0.0		Characterization			
B28	30	3.40			mean	32.16	2.73	
ognormal Population						47.93	1.17	<del></del>
Characterization	l				std dev	47.93		
mean	37.68	3.16			H (0.95) for UCL		2.72	
					number of samples	26		
etd dev	36.48	1.04						
std dev	36,48	1.04 2.58		-	95% UCL	58.07		
H (0.95) for UCL		2.58				58.07		
H (0.95) for UCL number of samples	28					58.07		•
H (0.95) for UCL						58.07		
H (0.95) for UCL number of samples	28 68.33	2.58	Calable Load			58.07		
H (0.95) for UCL number of samples 95% UCL	28 68.33 Total Lead	2.58 Total Lead	Soluble Lead				Total Lead	
H (0.95) for UCL number of samples 95% UCL Route 12	28 68.33 Total Lead	2.58	Soluble Lead		95% UCL	Total Lead	Total Lead	Soluble Le
H (0.95) for UCL number of samples 95% UCL Route 12	28 68.33 Total Lead	Z.58  Total Lead  LN(X)			95% UCL  Route 12	Total Lead	Total Lead LN(X)	
H (0.95) for UCL number of samples 95% UCL Route 12 Boring Location	28 68.33 Total Lead	2.58 Total Lead	ppm		95% UCL  Route 12  Boring Location	Total Lead ppm 0.9 m	LN(X)	Soluble Le
H (0.95) for UCL number of samples 95% UCL Route 12 Boring Location B1	28 68.33 Total Lead ppm 0.3 m	Z.58  Total Lead  LN(X)			95% UCL  Route 12  Boring Location B1	Total Lead ppm 0.9 m 5.0	LN(X)	Soluble Le
H (0.95) for UCL number of samples 95% UCL Route 12 Boring Location B1 B2	28 68.33 Total Lead ppm 0.3 m 6.4 56	2.58  Total Lead    LN(X)  1.86    4.03	ppm		95% UCL  Route 12  Boring Location	Total Lead ppm 0.9 m 5.0 5.2	1.61 1.65	Soluble Le
Route 12 Boring Location B1 B2 B3	28 68.33 Total Lead ppm 0.3 m 6.4 56 4.9	2.58  Total Lead    LN(X)  1.86    4.03    1.59	ppm		95% UCL  Route 12  Boring Location B1	Total Lead ppm 0.9 m 5.0 5.2 6.5	1.61 1.65 1.87	Soluble Le
H (0.95) for UCL number of samples 95% UCL Route 12 Boring Location B1 B2 B3 B5	28 68.33 Total Lead ppm 0.3 m 6.4 56 4.9	2.58  Total Lead LN(X)  1.86 4.03 1.59 2.40	ppm		Route 12 Boring Location B1 B3 B5	Total Lead ppm 0.9 m 5.0 5.2	1.61 1.65	Soluble Le
H (0.95) for UCL number of samples 95% UCL Route 12 Boring Location B1 B2 B3 B5 B6	28 68.33 Total Lead ppm 0.3 m 6.4 56 4.9 11	2.58  Total Lead LN(X)  1.86 4.03 1.59 2.40 1.41	ppm		Route 12 Boring Location B1 B3 B5 B6	Total Lead ppm 0.9 m 5.0 5.2 6.5 5.6	1.61 1.65 1.87 1.72	Soluble Le
H (0.95) for UCL number of samples 95% UCL Route 12 Boring Location B1 B2 B3 B5 B6 B7	28 68.33 Total Lead ppm 0.3 m 6.4 56 4.9 11 4.1 3.6	2.58  Total Lead LN(X)  1.86 4.03 1.59 2.40 1.41 1.28	ppm		Route 12 Boring Location B1 B3 B5 B6 B7	Total Lead ppm 0.9 m 5.0 5.2 6.5 5.6 3.6	1.61 1.65 1.87 1.72 1.28	Soluble Le
H (0.95) for UCL number of samples 95% UCL Route 12 Boring Location B1 B2 B3 B5 B6	28 68.33 Total Lead ppm 0.3 m 6.4 56 4.9 11 4.1 3.6 4.8	2.58  Total Lead LN(X)  1.86 4.03 1.59 2.40 1.41 1.28 1.57	ppm		Route 12 Boring Location B1 B3 B5 B6 B7 B8	Total Lead ppm 0.9 m 5.0 5.2 6.5 5.6 4.8	1.61 1.65 1.87 1.72 1.28 1.57	Soluble Le
H (0.95) for UCL number of samples 95% UCL Route 12 Boring Location B1 B2 B3 B5 B6 B7	28 68.33 Total Lead ppm 0.3 m 6.4 56 4.9 11 4.1 3.6	2.58  Total Lead LN(X)  1.86 4.03 1.59 2.40 1.41 1.28 1.57 3.22	ppm		Route 12 Boring Location B1 B3 B5 B6 B7 B8 B9	Total Lead ppm 0.9 m 5.0 5.2 6.5 5.6 3.6 4.8 5.5	1.61 1.65 1.87 1.72 1.28 1.57 1.70	Soluble Le
H (0.95) for UCL number of samples 95% UCL Route 12 Boring Location B1 B2 B3 B5 B6 B7 B8 B8	28 68.33 Total Lead ppm 0.3 m 6.4 56 4.9 11 4.1 3.6 4.8	2.58  Total Lead LN(X)  1.86 4.03 1.59 2.40 1.41 1.28 1.57	ppm		95% UCL  Route 12  Boring Location  B1  B3  B5  B6  B7  B8  B9  B10	Total Lead ppm 0.9 m 5.0 5.2 6.5 5.6 3.6 4.8 5.5 7.4	1.61 1.65 1.87 1.72 1.28 1.57 1.70 2.00	Soluble Le
H (0.95) for UCL number of samples 95% UCL  Route 12 Boring Location B1 B2 B3 B5 B6 B7 B8 B9 B10	28 68.33 Total Lead ppm 0.3 m 6.4 56 4.9 11 4.1 3.6 4.8 25 47	2.58  Total Lead LN(X)  1.86 4.03 1.59 1.41 1.28 1.57 3.22 3.85	ppm		Route 12 Boring Location B1 B3 B5 B6 B7 B8 B9	Total Lead ppm 0.9 m 5.0 5.2 6.5 5.6 3.6 4.8 5.5	1.61 1.65 1.87 1.72 1.28 1.57 1.70	Soluble Le
H (0.95) for UCL number of samples 95% UCL  Route 12  Boring Location B1 B2 B3 B5 B6 B7 B8 B9 B10 B11	28 68.33 Total Lead ppm 0.3 m 6.4 56 4.9 11 4.1 3.6 4.8 25 47	2.58  Total Lead LN(X)  1.86 4.03 1.59 2.40 1.41 1.28 1.57 3.22 3.85 4.44	3.5		95% UCL  Route 12  Boring Location  B1  B3  B5  B6  B7  B8  B9  B10  B11	Total Lead ppm 0.9 m 5.0 5.2 6.5 5.6 3.6 4.8 5.5 7.4	1.61 1.65 1.87 1.72 1.28 1.57 1.70 2.00	Soluble Le
H (0.95) for UCL number of samples 95% UCL  Route 12 Boring Location B1 B2 B3 B5 B6 B7 B8 B9 B10 B11 B12	28 68.33 Total Lead ppm 0.3 m 6.4 56 4.9 11 4.1 3.6 4.8 25 4.8 25 9.5	7.58  Total Lead LN(X)  1.86 4.03 1.59 2.40 1.41 1.28 1.57 3.22 3.85 4.44 2.25	3.5 3.5		95% UCL  Route 12  Boring Location  B1  B3  B5  B6  B7  B8  B9  B10  B11  B12	Total Lead ppm 0.9 m 5.0 5.2 6.5 5.6 3.6 4.8 5.5 7.4 8.0 6.3	LN(X)  1.61 1.65 1.87 1.72 1.28 1.57 1.70 2.00 2.08 1.84	Soluble Le
H (0.95) for UCL number of samples 95% UCL  Route 12 Boring Location B1 B2 B3 B5 B6 B7 B8 B9 B10 B11 B12 B13	28 68.33 Total Lead ppm 0.3 m 6.4 56 4.9 11 4.1 3.6 4.8 25 47 85	2.58  Total Lead LN(X)  1.86 4.03 1.59 2.40 1.41 1.28 1.57 3.22 3.85 4.44 2.25 4.13	3.5		95% UCL  Route 12  Boring Location  B1  B3  B5  B6  B7  B8  B9  B10  B11  B12  B13	Total Lead ppm 0.9 m 5.0 5.2 6.5 5.6 3.6 4.8 5.5 7.4 8.0 6.3 7.4	LN(X)  1.61 1.65 1.87 1.72 1.28 1.57 1.70 2.00 2.08 1.84 2.00	Soluble Le
H (0.95) for UCL number of samples 95% UCL  Route 12 Boring Location B1 B2 B3 B5 B6 B7 B8 B9 B10 B11 B12	28 68.33 Total Lead ppm 0.3 m 6.4 56 4.9 111 4.1 3.6 4.8 225 47 85 9.5 62	2.58  Total Lead LN(X)  1.86 4.03 1.59 2.40 1.41 1.28 1.57 3.22 3.85 4.44 2.25 4.13 3.09	3.5 3.5 2.9		95% UCL  Route 12  Boring Location  B1  B3  B5  B6  B7  B8  B9  B10  B11  B12  B13  B14	Total Lead ppm 0.9 m 5.0 5.2 6.5 5.6 3.6 4.8 5.5 7.4 8.0 6.3 7.4 6.8	LN(X)  1.61 1.65 1.87 1.72 1.28 1.57 1.70 2.00 2.08 1.84 2.00 1.92	Soluble Le
H (0.95) for UCL number of samples 95% UCL  Route 12  Boring Location  B1  B2  B3  B5  B6  B7  B8  B9  B10  B11  B12  B13  B14	28 68.33 Total Lead ppm 0.3 m 6.4 56 4.9 11 4.1 3.6 4.8 25 47 85	2.58  Total Lead LN(X)  1.86 4.03 1.59 2.40 1.41 1.28 1.57 3.22 3.85 4.44 2.25 4.13 3.09 4.26	2.9 2.2 2.2		95% UCL  Route 12  Boring Location  B1  B3  B5  B6  B7  B8  B9  B10  B11  B12  B13  B14  B15	Total Lead ppm 0.9 m 5.0 5.2 6.5 5.6 3.6 4.8 5.5 7.4 8.0 6.3 7.4 6.8 6.8 6.8	LN(X)  1.61 1.65 1.87 1.72 1.28 1.57 1.70 2.00 2.08 1.84 2.00 1.92 1.92	Soluble Le
H (0.95) for UCL number of samples 95% UCL  Route 12  Boring Location  B1  B2  B3  B5  B6  B7  B8  B9  B10  B11  B12  B13  B14  B15	28 68.33 Total Lead ppm 0.3 m 6.4 56 4.9 11 4.1 3.6 4.8 25 47 85 9.5 62 22	2.58  Total Lead LN(X)  1.86 4.03 1.59 2.40 1.41 1.28 1.57 3.22 3.85 4.44 2.25 4.13 3.09	3.5 3.5 2.9		95% UCL  Route 12  Boring Location  B1  B3  B5  B6  B7  B8  B9  B10  B11  B12  B13  B14  B15  B16	Total Lead ppm 0.9 m 5.0 5.2 6.5 5.6 3.6 4.8 5.5 7.4 6.8 6.8 5.5 5.5	LN(X)  1.61 1.65 1.87 1.72 1.28 1.57 1.70 2.00 2.08 1.84 2.00 1.92 1.92 1.70	Soluble Le
H (0.95) for UCL number of samples 95% UCL  Route 12  Boring Location  B1  B2  B3  B5  B6  B7  B8  B9  B10  B11  B12  B13  B14  B15  B15  B16	28 68.33 Total Lead ppm 0.3 m 6.4 56 4.9 11 4.1 3.6 4.8 25 4.7 85 9.5 62 22 71 62	2.58  Total Lead LN(X)  1.86 4.03 1.59 2.40 1.41 1.28 1.57 3.22 3.85 4.44 2.25 4.13 3.09 4.26 4.13	2.9 2.2 2.2		95% UCL  Route 12  Boring Location  B1  B3  B5  B6  B7  B8  B9  B10  B11  B12  B13  B14  B15	Total Lead ppm 0.9 m 5.0 5.2 6.5 5.6 3.6 4.8 5.5 7.4 8.0 6.3 7.4 6.8 6.8 5.5 19	LN(X)  1.61 1.65 1.87 1.72 1.28 1.57 1.70 2.00 2.08 1.84 2.00 1.92 1.92 1.70 2.94	Soluble Le
H (0.95) for UCL number of samples 95% UCL  Route 12  Boring Location  B1  B2  B3  B5  B6  B7  B8  B9  B10  B11  B12  B13  B14  B15  B16  B16  B17	28 68.33 Total Lead ppm 0.3 m 6.4 56 4.9 11 4.1 3.6 4.8 25 47 85 9.5 62 22 71 62 34	2.58  Total Lead LN(X)  1.86 4.03 1.59 2.40 1.41 1.28 1.57 3.22 3.85 4.44 2.25 4.13 3.09 4.26 4.13 3.53	2.9 2.2 2.2		95% UCL  Route 12  Boring Location  B1  B3  B5  B6  B7  B8  B9  B10  B11  B12  B13  B14  B15  B16  B17	Total Lead ppm 0.9 m 5.0 5.2 6.5 5.6 3.6 4.8 5.5 7.4 6.8 6.8 5.5 5.5	LN(X)  1.61 1.65 1.87 1.72 1.28 1.57 1.70 2.00 2.08 1.84 2.00 1.92 1.92 1.70	Soluble Le
H (0.95) for UCL number of samples 95% UCL  Route 12  Boring Location  B1  B2  B3  B5  B6  B7  B8  B9  B10  B11  B12  B13  B14  B15  B16  B17  B18	28 68.33 Total Lead ppm 0.3 m 6.4 56 4.9 11 4.1 3.6 4.8 25 47 85 9.5 62 22 71 62 34 63	2.58  Total Lead LN(X)  1.86 4.03 1.59 2.40 1.41 1.28 1.57 3.22 3.85 4.44 2.25 4.13 3.09 4.26 4.13 3.53 4.14	2.9 2.2 2.2		95% UCL  Route 12  Boring Location  B1  B3  B5  B6  B7  B8  B9  B10  B11  B12  B13  B14  B15  B16  B17  B16	Total Lead ppm 0.9 m 5.0 5.2 6.5 5.6 3.6 4.8 5.5 7.4 8.0 6.3 7.4 6.8 6.8 5.5	LN(X)  1.61 1.65 1.87 1.72 1.28 1.57 1.70 2.00 2.08 1.84 2.00 1.92 1.92 1.70 2.94	Soluble Le
H (0.95) for UCL number of samples 95% UCL 95% UCL 80%	28 68.33 Total Lead ppm 0.3 m 6.4 56 4.9 11 4.1 3.6 4.8 25 47 85 9.5 62 22 71 62 34 63 30	2.58  Total Lead LN(X)  1.86 4.03 1.59 2.40 1.41 1.28 1.57 3.22 3.85 4.44 2.25 4.13 3.09 4.26 4.13 3.53 4.14 3.40	2.9 2.2 2.2		95% UCL  Route 12  Boring Location  B1  B3  B5  B6  B7  B8  B9  B10  B11  B12  B13  B14  B15  B16  B17  B18  B19	Total Lead ppm 0.9 m 5.0 5.2 6.5 5.6 3.6 4.8 5.5 7.4 8.0 6.3 7.4 6.8 5.5 19 12 27	LN(X)  1.61 1.65 1.87 1.72 1.28 1.57 1.70 2.00 2.08 1.84 2.00 1.92 1.92 1.70 2.94 2.48 3.30	Soluble Le
H (0.95) for UCL number of samples 95% UCL 95% UCL 80%	28 68.33  Total Lead ppm 0.3 m 6.4 56 4.9 11 4.1 3.6 4.8 25 9.5 62 22 71 62 34 63 30 8.6	7.58  Total Lead LN(X)  1.86 4.03 1.59 2.40 1.41 1.28 1.57 3.22 3.85 4.44 2.25 4.13 3.09 4.26 4.13 3.53 4.14 3.40 2.15	2.9 2.2 2.2 1.4		95% UCL  Route 12  Boring Location  B1  B3  B5  B6  B7  B8  B9  B10  B11  B12  B13  B14  B15  B16  B17  B18  B19  B20	Total Lead ppm 0.9 m 5.0 5.2 6.5 5.6 3.6 4.8 5.5 7.4 6.8 6.8 5.5 19 12 27 5.9	LN(X)  1.61 1.65 1.87 1.72 1.28 1.57 1.70 2.00 2.08 1.84 2.00 1.92 1.70 2.94 2.48 3.30 1.77	Soluble Le
H (0.95) for UCL number of samples 95% UCL 95% UCL 80%	28 68.33  Total Lead ppm 6.4 56 4.9 11 4.1 3.6 4.8 226 47 85 9.5 62 22 71 62 34 63 30 8.6	2.58  Total Lead LN(X)  1.86 4.03 1.59 2.40 1.41 1.28 1.57 3.22 3.85 4.44 2.25 4.13 3.09 4.26 4.13 3.53 4.14 3.40 2.15 4.57	2.9 2.2 2.2		95% UCL  Route 12  Boring Location  B1  B3  B5  B6  B7  B8  B9  B10  B11  B12  B13  B14  B15  B16  B17  B18  B19  B20  B21	Total Lead ppm 0.9 m 5.0 5.2 6.5 5.6 3.6 4.8 5.5 7.4 8.0 6.3 7.4 6.8 6.8 5.5 19 12 27 5.9 7.1	LN(X)  1.61 1.65 1.87 1.72 1.28 1.57 1.70 2.00 2.08 1.84 2.00 1.92 1.92 1.70 2.94 2.48 3.30 1.77 1.96	Soluble Le
H (0.95) for UCL number of samples 95% UCL  Route 12  Boring Location  B1  B2  B3  B5  B6  B7  B8  B9  B10  B11  B12  B13  B14  B15  B16  B17  B18  B19  B20  B20  B21	28 68.33  Total Lead ppm 0.3 m 6.4 56 4.9 11 4.1 3.6 4.8 25 9.5 62 22 71 62 34 63 30 8.6	7.58  Total Lead LN(X)  1.86 4.03 1.59 2.40 1.41 1.28 1.57 3.22 3.85 4.44 2.25 4.13 3.09 4.26 4.13 3.53 4.14 3.40 2.15	2.9 2.2 2.2 1.4		95% UCL  Route 12  Boring Location  B1  B3  B5  B6  B7  B8  B9  B10  B11  B12  B13  B14  B15  B16  B17  B18  B19  B20  B21  B22	Total Lead ppm 0.9 m 5.0 5.2 6.5 5.6 3.6 4.8 5.5 7.4 8.0 6.3 7.4 6.8 6.8 5.5 12 27 5.9 7.1 7.6	LN(X)  1.61 1.65 1.87 1.72 1.28 1.57 1.70 2.00 2.08 1.84 2.00 1.92 1.92 1.70 2.94 2.48 3.30 1.77 1.96 2.03	Soluble Le
H (0.95) for UCL number of samples 95% UCL 95% UCL Route 12 Boring Location B1 B2 B3 B5 B6 B7 B8 B9 B10 B11 B12 B13 B14 B15 B16 B17 B18 B19 B20 B21 B22	28 68.33 Total Lead ppm 0.3 m 6.4 56 4.9 11 4.1 3.6 4.8 25 47 85 9.5 62 22 71 62 34 63 30 8.6 97	2.58  Total Lead LN(X)  1.86 4.03 1.59 2.40 1.41 1.28 1.57 3.22 3.85 4.44 2.25 4.13 3.09 4.26 4.13 3.40 2.15 3.47	2.9 2.2 2.2 1.4		95% UCL  Route 12  Boring Location  B1  B3  B5  B6  B7  B8  B9  B10  B11  B12  B13  B14  B15  B16  B17  B18  B19  B20  B21	Total Lead ppm 0.9 m 5.0 5.2 6.5 5.6 3.6 4.8 5.5 7.4 8.0 6.3 7.4 6.8 5.5 19 12 27 5.9 7.1 7.6 9.4	LN(X)  1.61 1.65 1.87 1.72 1.28 1.57 1.70 2.00 2.08 1.84 2.00 1.92 1.92 1.70 2.94 2.48 3.30 1.77 1.96 2.03 2.24	Soluble Le
H (0.95) for UCL number of samples 95% UCL 95% UCL    Route 12   Boring Location   B1   B2   B3   B5   B6   B7   B8   B9   B10   B11   B12   B13   B14   B15   B16   B17   B18   B19   B10   B11   B12   B13   B14   B15   B16   B17   B18   B19   B20   B21   B22   B23	28 68.33  Total Lead ppm 0.3 m 6.4 56 4.9 11 4.1 3.6 4.8 25 47 85 9.5 62 22 71 62 34 63 30 8.6 97 32	2.58  Total Lead LN(X)  1.86 4.03 1.59 2.40 1.41 1.28 1.57 3.22 3.85 4.44 2.25 4.13 3.09 4.26 4.13 3.53 4.14 3.40 2.15 4.57 3.47 2.64	2.9 2.2 2.2 1.4		95% UCL  Route 12  Boring Location  B1  B3  B5  B6  B7  B8  B9  B10  B11  B12  B13  B14  B15  B16  B17  B18  B19  B20  B21  B22	Total Lead ppm 0.9 m 5.0 5.2 6.5 5.6 3.6 4.8 5.5 7.4 8.0 6.3 7.4 6.8 6.8 5.5 12 27 5.9 7.1 7.6	LN(X)  1.61 1.65 1.87 1.72 1.28 1.57 1.70 2.00 2.08 1.84 2.00 1.92 1.70 2.94 2.48 3.30 1.77 1.96 2.03 2.24 3.09	Soluble Le
H (0.95) for UCL number of samples 95% UCL 95% UCL Route 12 Boring Location B1 B2 B3 B5 B6 B7 B8 B9 B10 B11 B12 B13 B14 B15 B16 B17 B18 B19 B20 B21 B22 B23 B24	28 68.33  Total Lead ppm 0.3 m 6.4 56 4.9 11 4.1 3.6 4.8 25 47 85 9.5 62 22 71 62 34 63 30 8.6 97 32 14	2.58  Total Lead LN(X)  1.86 4.03 1.59 2.40 1.41 1.28 1.57 3.22 3.85 4.44 2.25 4.13 3.53 4.14 3.40 2.15 4.57 3.47 2.64 2.77	2.9 2.2 2.2 1.4		95% UCL  Route 12  Boring Location  B1  B3  B5  B6  B7  B8  B9  B10  B11  B12  B13  B14  B15  B16  B17  B18  B19  B20  B21  B22  B23  B24	Total Lead ppm 0.9 m 5.0 5.2 6.5 5.6 3.6 4.8 5.5 7.4 6.8 6.8 5.5 19 12 27 5.9 7.1 7.6 9.4 22	LN(X)  1.61 1.65 1.87 1.72 1.28 1.57 1.70 2.00 2.08 1.84 2.00 1.92 1.92 1.70 2.94 2.48 3.30 1.77 1.96 2.03 2.24	Soluble Le
H (0.95) for UCL number of samples 95% UCL    Route 12   Boring Location   B1   B2   B3   B5   B6   B7   B8   B9   B10   B11   B12   B13   B14   B15   B16   B17   B18   B19   B20   B21   B22   B23   B22   B23   B24   B25	28 68.33 Total Lead ppm 6.4 56 4.9 11 4.1 3.6 4.8 226 47 85 9.5 62 22 71 63 30 86 87 32 14 16 37	2.58  Total Lead LN(X)  1.86 4.03 1.59 2.40 1.41 1.28 1.57 3.22 3.85 4.44 2.25 4.13 3.09 4.26 4.13 3.53 4.14 3.40 2.15 4.57 3.47 2.64 2.77 3.61	2.9 2.2 2.2 1.4		95% UCL  Route 12  Boring Location  B1  B3  B5  B6  B7  B8  B9  B10  B11  B12  B13  B14  B15  B16  B17  B18  B19  B20  B21  B22  B23  B24  B25	Total Lead ppm 0.9 m 5.0 5.2 6.5 6.6 3.6 4.8 5.5 7.4 8.0 6.3 7.4 6.8 6.8 5.5 19 12 27 5.9 7.1 7.6 9.4 22	LN(X)  1.61 1.65 1.87 1.72 1.28 1.57 1.70 2.00 2.08 1.84 2.00 1.92 1.92 1.70 2.94 2.48 3.30 1.77 1.96 2.03 2.24 3.09 2.71	Soluble Le
H (0.95) for UCL number of samples 95% UCL 95% UCL Route 12 Boring Location B1 B2 B3 B5 B6 B7 B8 B9 B10 B11 B12 B13 B14 B15 B16 B17 B18 B19 B20 B21 B22 B23 B24 B25 B26	28 68.33 Total Lead ppm 0.3 m 6.4 56 4.9 11 4.1 3.6 4.8 25 47 85 9.5 62 22 71 62 34 63 30 8.6 97 32 14	2.58  Total Lead LN(X)  1.86 4.03 1.59 2.40 1.41 1.28 1.57 3.22 3.85 4.44 2.25 4.13 3.09 4.26 4.13 3.40 2.15 4.57 3.47 2.64 2.77 3.61 1.72	2.9 2.2 2.2 1.4		95% UCL  Route 12  Boring Location  B1  B3  B5  B6  B7  B8  B9  B10  B11  B12  B13  B14  B15  B16  B17  B18  B19  B20  B21  B22  B23  B24  B25  B26	Total Lead ppm 0.9 m 5.0 5.2 6.5 5.6 3.6 4.8 5.5 7.4 8.0 6.3 7.4 6.8 6.8 5.5 19 12 27 5.9 7.1 7.6 9.4 22 15	LN(X)  1.61 1.65 1.87 1.72 1.28 1.57 1.70 2.00 2.08 1.84 2.00 1.92 1.92 1.70 2.94 2.48 3.30 1.77 1.96 2.03 2.24 3.09 2.71 3.30	Soluble Le
H (0.95) for UCL number of samples 95% UCL    Route 12   Boring Location   B1   B2   B3   B5   B6   B7   B8   B9   B10   B11   B12   B13   B14   B15   B16   B17   B18   B19   B20   B21   B22   B23   B22   B23   B24   B25	28 68.33  Total Lead ppm 0.3 m 6.4 56 4.9 11 4.1 3.6 4.8 25 47 85 9.5 62 22 71 62 34 63 30 8.6 97 32 14 16 37 5.6	2.58  Total Lead LN(X)  1.86 4.03 1.59 2.40 1.41 1.28 1.57 3.85 4.44 2.25 4.13 3.09 4.26 4.13 3.40 2.15 4.57 3.47 2.64 2.77	2.9 2.2 2.2 1.4		95% UCL  Route 12 Boring Location B1 B3 B5 B6 B7 B8 B9 B10 B11 B12 B13 B14 B15 B16 B17 B18 B19 B20 B21 B22 B23 B24 B25 B26 B26 B27	Total Lead ppm 0.9 m 5.0   5.2   6.5   5.6   3.6   4.8   5.5   7.4   8.0   6.3   7.4   6.8   5.5   19   12   27   5.9   7.1   7.6   9.4   22   15   27   25	LN(X)  1.61 1.65 1.87 1.72 1.28 1.57 1.70 2.00 2.08 1.84 2.00 1.92 1.92 1.70 2.94 2.48 3.30 1.77 1.96 2.03 2.24 3.09 2.71 3.30 3.22	Soluble L
H (0.95) for UCL number of samples 95% UCL 95% UCL Provided Provid	28 68.33 Total Lead ppm 0.3 m 6.4 56 4.9 11 4.1 3.6 4.8 25 47 85 9.5 62 22 71 62 34 63 30 8.6 97 32 14	2.58  Total Lead LN(X)  1.86 4.03 1.59 2.40 1.41 1.28 1.57 3.22 3.85 4.44 2.25 4.13 3.09 4.26 4.13 3.40 2.15 4.57 3.47 2.64 2.77 3.61 1.72	2.9 2.2 2.2 1.4		95% UCL  Route 12  Boring Location  B1  B3  B5  B6  B7  B8  B9  B10  B11  B12  B13  B14  B15  B16  B17  B18  B19  B20  B21  B22  B23  B24  B25  B26  B27  B28	Total Lead ppm 0.9 m 5.0 5.2 6.5 5.6 3.6 4.8 5.5 7.4 8.0 6.3 7.4 6.8 6.8 5.5 19 12 27 5.9 7.1 7.6 9.4 22 15	LN(X)  1.61 1.65 1.87 1.72 1.28 1.57 1.70 2.00 2.08 1.84 2.00 1.92 1.92 1.70 2.94 2.48 3.30 1.77 1.96 2.03 2.24 3.09 2.71 3.30	Soluble L
H (0.95) for UCL number of samples 95% UCL   Route 12 Boring Location B1 B2 B3 B5 B6 B7 B8 B9 B10 B11 B12 B13 B14 B15 B16 B17 B18 B19 B20 B21 B22 B22 B23 B24 B25 B26 B27 B28	28 68.33  Total Lead ppm 0.3 m 6.4 56 4.9 11 4.1 3.6 4.8 25 47 85 9.5 62 22 71 62 34 63 30 8.6 97 32 14 16 37 5.6	2.58  Total Lead LN(X)  1.86 4.03 1.59 2.40 1.41 1.28 1.57 3.85 4.44 2.25 4.13 3.09 4.26 4.13 3.40 2.15 4.57 3.47 2.64 2.77	2.9 2.2 2.2 1.4		95% UCL  Route 12 Boring Location B1 B3 B5 B6 B7 B8 B9 B10 B11 B12 B13 B14 B15 B16 B17 B18 B19 B20 B21 B22 B23 B24 B25 B26 B27 B28 cognormal Population	Total Lead ppm 0.9 m 5.0   5.2   6.5   5.6   3.6   4.8   5.5   7.4   8.0   6.3   7.4   6.8   5.5   19   12   27   5.9   7.1   7.6   9.4   22   15   27   25	LN(X)  1.61 1.65 1.87 1.72 1.28 1.57 1.70 2.00 2.08 1.84 2.00 1.92 1.92 1.70 2.94 2.48 3.30 1.77 1.96 2.03 2.24 3.09 2.71 3.30 3.22	Soluble L
H (0.95) for UCL number of samples 95% UCL    Route 12   Boring Location   B1   B2   B3   B5   B6   B7   B8   B9   B10   B11   B12   B13   B14   B15   B16   B17   B18   B19   B20   B21   B20   B21   B22   B23   B24   B25   B26   B27   B28   B26   B27   B28   B28   B28   B28   B29   B28   B29   B28   B29   B29   B21   B22   B23   B24   B25   B26   B27   B28   B28   B28   B28   B29   B29   B29   B28   B29	28 68.33  Total Lead ppm 0.3 m 6.4 56 4.9 11 4.1 3.6 4.8 25 47 85 9.5 62 22 71 62 34 63 30 8.6 97 32 14 16 37 5.6	2.58  Total Lead LN(X)  1.86 4.03 1.59 2.40 1.41 1.28 1.57 3.85 4.44 2.25 4.13 3.09 4.26 4.13 3.40 2.15 4.57 3.47 2.64 2.77	2.9 2.2 2.2 1.4		95% UCL  Route 12  Boring Location  B1  B3  B5  B6  B7  B8  B9  B10  B11  B12  B13  B14  B15  B16  B17  B18  B19  B20  B21  B22  B23  B24  B25  B26  B27  B28	Total Lead ppm 0.9 m 5.0   5.2   6.5   5.6   3.6   4.8   5.5   7.4   8.0   6.3   7.4   6.8   5.5   19   12   27   5.9   7.1   7.6   9.4   22   15   27   25	LN(X)  1.61 1.65 1.87 1.72 1.28 1.57 1.70 2.00 2.08 1.84 2.00 1.92 1.92 1.70 2.94 2.48 3.30 1.77 1.96 2.03 2.24 3.09 2.71 3.30 3.22 2.40	Soluble Le
H (0.95) for UCL number of samples 95% UCL  Route 12 Boring Location B1 B2 B3 B5 B6 B7 B8 B9 B10 B11 B12 B13 B14 B15 B16 B17 B18 B19 B20 B21 B22 B23 B24 B22 B23 B24 B22 B23 B24 B25 B26 B27 B28 Lognormal Population Characterization	28 68.33 Total Lead ppm 0.3 m 6.4 56 4.9 11 4.1 3.6 4.8 25 47 85 9.5 62 22 71 62 34 63 30 8.6 97 32 14 16 37 5.6	2.58  Total Lead LN(X)  1.86 4.03 1.59 2.40 1.41 1.28 1.57 3.22 3.85 4.44 2.25 4.13 3.09 4.26 4.13 3.40 2.15 4.57 3.47 2.64 2.77 3.61 1.72 2.77 3.00	2.9 2.2 2.2 1.4		95% UCL  Route 12 Boring Location B1 B3 B5 B6 B7 B8 B9 B10 B11 B12 B13 B14 B15 B16 B17 B18 B19 B20 B21 B22 B23 B24 B25 B26 B27 B28 cognormal Population Characterization	Total Lead ppm 0.9 m 5.0 5.2 6.5 5.6 3.6 4.8 5.5 7.4 8.0 6.3 7.4 6.8 6.8 5.5 19 12 27 5.9 7.1 7.6 9.4 22 21 15 27 25 11	LN(X)  1.61 1.65 1.87 1.72 1.28 1.57 1.70 2.00 2.08 1.84 2.00 1.92 1.92 1.70 2.94 2.48 3.30 1.77 1.96 2.03 2.24 3.09 2.71 3.30 3.22	Soluble Le
H (0.95) for UCL number of samples 95% UCL 95% UCL    Route 12   Boring Location   B1   B2   B3   B5   B6   B7   B8   B9   B10   B11   B12   B13   B14   B15   B16   B17   B18   B19   B20   B21   B22   B23   B24   B25   B26   B27   B28   Lognormal Population Characterization mean	28 68.33  Total Lead ppm 0.3 m 6.4 56 4.9 11 4.1 3.6 4.8 25 47 85 9.5 62 22 71 62 34 63 30 8.6 97 32 14 16 37 5.6 16 20	2.58  Total Lead LN(X)  1.86 4.03 1.59 2.40 1.41 1.28 1.57 3.85 4.44 2.25 4.13 3.09 4.26 4.13 3.40 2.15 4.57 3.47 2.64 2.77 3.61 1.72 2.77 3.00	2.9 2.2 2.2 1.4		95% UCL  Route 12 Boring Location B1 B3 B5 B6 B7 B8 B9 B10 B11 B12 B13 B14 B15 B16 B17 B18 B19 B20 B21 B22 B23 B24 B25 B26 B27 B28 cognormal Population Characterization mean	Total Lead ppm 0.9 m 5.0   5.2   6.5   5.6   3.6   4.8   5.5   7.4   8.0   6.3   7.4   6.8   5.5   19   12   27   5.9   7.1   7.6   9.4   22   15   27   25   11   10.48	LN(X)  1.61 1.65 1.87 1.72 1.28 1.57 1.70 2.00 2.08 1.84 2.00 1.92 1.92 1.70 2.94 2.48 3.30 1.77 1.96 2.03 2.24 3.09 2.71 3.30 3.22 2.40	Soluble Le
H (0.95) for UCL number of samples 95% UCL 95% UCL Provided in the samples 95% UCL Provided in	28 68.33 Total Lead ppm 0.3 m 6.4 56 4.9 11 4.1 3.6 4.8 25 47 85 9.5 62 22 71 62 34 63 30 8.6 97 32 14 16 37 5.6	2.58  Total Lead LN(X)  1.86 4.03 1.59 2.40 1.41 1.28 1.57 3.22 3.85 4.44 2.25 4.13 3.09 4.26 4.13 3.53 4.14 3.40 2.15 4.57 3.47 2.64 2.77 3.61 1.72 3.00	2.9 2.2 2.2 1.4		95% UCL  Route 12  Boring Location  B1  B3  B5  B6  B7  B8  B9  B10  B11  B12  B13  B14  B15  B16  B17  B18  B19  B20  B21  B22  B23  B24  B25  B26  B27  B28  Ognormal Population  Characterization  mean  std dev	Total Lead ppm 0.9 m 5.0 5.2 6.5 5.6 3.6 4.8 5.5 7.4 8.0 6.3 7.4 6.8 6.8 5.5 19 12 27 5.9 7.1 7.6 9.4 22 21 15 27 25 11	LN(X)  1.61 1.65 1.87 1.72 1.28 1.57 1.70 2.00 2.08 1.84 2.00 1.92 1.70 2.94 2.48 3.30 1.77 1.96 2.03 2.24 3.09 2.71 3.30 3.22 2.40	Soluble Le
H (0.95) for UCL number of samples 95% UCL  Route 12 Boring Location B1 B2 B3 B5 B6 B7 B8 B9 B10 B11 B12 B13 B14 B15 B16 B17 B18 B19 B20 B21 B21 B22 B23 B24 B25 B26 B27 B28 Lognormal Population Characterization mean	28 68.33  Total Lead ppm 6.4 56 4.9 11 4.1 3.6 4.8 225 47 85 9.5 62 22 71 62 34 63 30 8.6 97 32 14 16 37 5.6 16 20	2.58  Total Lead LN(X)  1.86 4.03 1.59 2.40 1.41 1.28 1.57 3.85 4.44 2.25 4.13 3.09 4.26 4.13 3.40 2.15 4.57 3.47 2.64 2.77 3.61 1.72 2.77 3.00	2.9 2.2 2.2 1.4		95% UCL  Route 12 Boring Location B1 B3 B5 B6 B7 B8 B9 B10 B11 B12 B13 B14 B15 B16 B17 B18 B19 B20 B21 B22 B23 B24 B25 B23 B24 B25 B26 B27 B28 cognormal Population Characterization mean std dev H (0.95) for UCL	Total Lead ppm 0.9 m 5.0 5.2 6.5 5.6 3.6 4.8 5.5 7.4 8.0 6.3 7.4 6.8 5.5 19 12 27 5.9 7.1 7.6 9.4 22 15 27 25 11 10.48 7.28	LN(X)  1.61 1.65 1.87 1.72 1.28 1.57 1.70 2.00 2.08 1.84 2.00 1.92 1.92 1.70 2.94 2.48 3.30 1.77 1.96 2.03 2.24 3.09 2.71 3.30 3.22 2.40	Soluble Le
H (0.95) for UCL number of samples 95% UCL 95% UCL Provided in the samples 95% UCL Provided in	28 68.33  Total Lead ppm 0.3 m 6.4 56 4.9 11 4.1 3.6 4.8 25 47 85 9.5 62 22 71 62 34 63 30 8.6 97 32 14 16 37 5.6 16 20	2.58  Total Lead LN(X)  1.86 4.03 1.59 2.40 1.41 1.28 1.57 3.22 3.85 4.44 2.25 4.13 3.09 4.26 4.13 3.53 4.14 3.40 2.15 4.57 3.47 2.64 2.77 3.61 1.72 3.00	2.9 2.2 2.2 1.4		95% UCL  Route 12  Boring Location  B1  B3  B5  B6  B7  B8  B9  B10  B11  B12  B13  B14  B15  B16  B17  B18  B19  B20  B21  B22  B23  B24  B25  B26  B27  B28  Ognormal Population  Characterization  mean  std dev	Total Lead ppm 0.9 m 5.0   5.2   6.5   5.6   3.6   4.8   5.5   7.4   8.0   6.3   7.4   6.8   5.5   19   12   27   5.9   7.1   7.6   9.4   22   15   27   25   11   10.48	LN(X)  1.61 1.65 1.87 1.72 1.28 1.57 1.70 2.00 2.08 1.84 2.00 1.92 1.70 2.94 2.48 3.30 1.77 1.96 2.03 2.24 3.09 2.71 3.30 3.22 2.40	Soluble Le

1-ft sample

3-ft samples

#### TABLE 2 LEAD STATISTICAL ANALYSES Caltrans - Route 12 and Route 505 Investigations

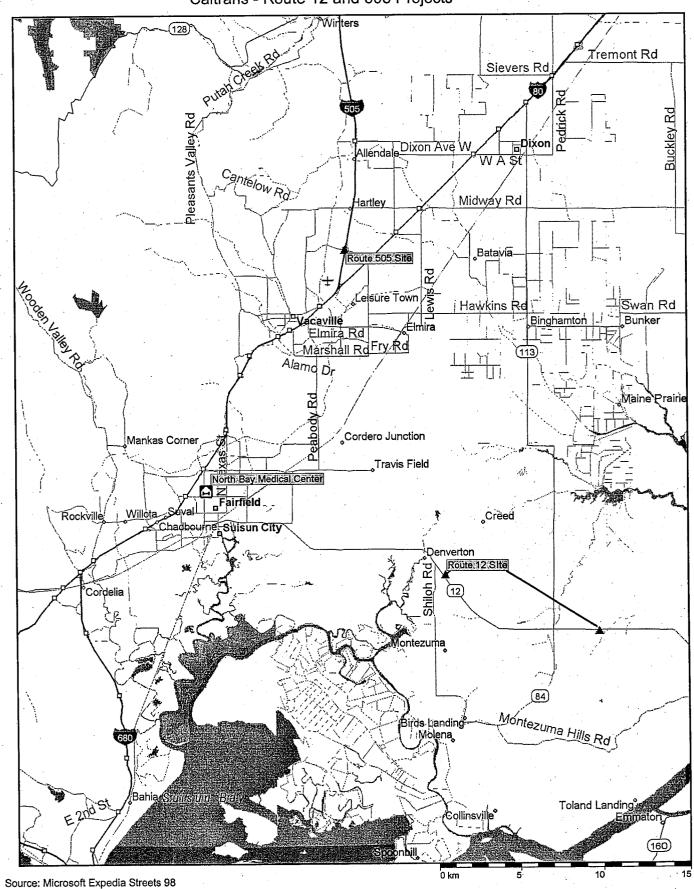
<del></del>			T					
	Total Lead	Total Lead	Soluble Lead			Total Lead	Total Lead	Soluble Lead
Route 505	ppm	LN(X)	ppm		Route 505	ppm	LN(X)	ppm
	0.15 m	LIVIV	- РР		Boring Location	0.3 m		
Boring Location	510	6,23	2.2	· · · · · · · · · · · · · · · · · · ·	B1	6.9	1.93	
B1 B2	133	4.89	0.77		B2	5.5 –	1.70	
	255	5.54	1.3		B3	5.8	1.76	
B3	12	2.48	<del>                                     </del>		B4	6.6	1.89	
B4	21	3.04			B5	9.4	2.24	
B5		2.83			B6	5.9	1.77	
B6	17	4.03	1.0		B7	10	2.30	
B7	56		3.5		B8	15	2.71	
B8	68	4.22	3.5		B9	16	2.77	
B9	7.0	1.95			B10	5.8	1.76	
B10	7.9	2.07	ļ		B11	6.7	1.90	
B11	7.6	2.03			Lognormal Population	- U.I	,,,,,,	
Lognormal Population					Characterization			
Characterization						8.51	2.07	
mean	99,50	3.57			mean	3.76	0.38	
std dev	155.79	1.50			std dev	3.70	2.03	
H (0.95) for UCL		4.05			H (0.95) for UCL	11	2.00	<del>                                     </del>
number of samples	11				number of samples	10.89	<del> </del>	<del></del>
95% UCL	758.99				95% UCL	10.89		
						<u> </u>	<u> </u>	
	Total Lead	Total Lead	Soluble Lead					<del> </del>
Route 505	ppm	LN(X)	ppm					<del> </del>
Boring Location	0.6 m							
B1	11	2.40				<u></u>		
B2	7.0	1.95						
B3	7.3	1.99						
B4	6.2	1.82						
B5	9.7	2.27						<del></del>
B6	7.4	2.00						
B7	11	2.40	<del> </del>	· ·				
B8	10	2,30						
	11	2.40						
B9	6.3	1.84						
B10	4.4	1.48						
B11	4.4	1.40	<del> </del>					
Lognormal Population			+				T	
Characterization	8,30	2.08	+	<del> </del>				
mean	2.32	0.30	<del> </del>	-			1	
std dev	2.32	1.95	+	<del>                                     </del>	<del>                                     </del>			
H (0.95) for UCL		1.55	<del></del>					
number of samples	10.05		<del> </del>	<del> </del>		1		
95% UCL	10.05	<del></del>	<del></del>	<del>                                     </del>				
	ļ	<b></b>	+	<del>                                     </del>		1		
Notes:	ļ. — — —	<del> </del>		<del>                                     </del>	+			
ppm = parts per million	1				+	<del>                                     </del>	T	
0-0.15 m = sample depth	in meters belo	w ground sum	10 <del>0</del>	1	<del> </del>			
LN(X) = natural log of tota			1 0040 in militar	ma nor kilose	am equivalent to ppm			
Total Lead = reported cor	centration from	m EPA method	6010 in milligh	ITTO method	Bold and Italic result is ren	orted from the 7	oxicity Leaching	Characteristic
Soluble Lead = reported of	concentration f	rom Waste Ex	traction lest (V	/EI) method.	Bold and Italic result is rep	l long in the l	Consider a constant	,
Proce	dure (TCLP).	Values in millig	rams per liter (ı	ng/i) equivale	пі то ррті.			
mean = arithmetic mean	l						+	<del>                                     </del>
the standard of the state of th	_			<u></u>	1.0, 1.0, 10.00	- (Cilbart 4007	· — —	<del></del>
		n of one-sided	95% Upper Co	nfidence Lev	el for a lognormal distribution	on (Gilbert, 1987	har than the	culated value
95% UCL = 95% Upper C	Confidence Lev	vel. Interpreted	l as a 95% con	fidence that th	ne true mean for a given po	pulation is no ni	grier triair trie ca	culated value.

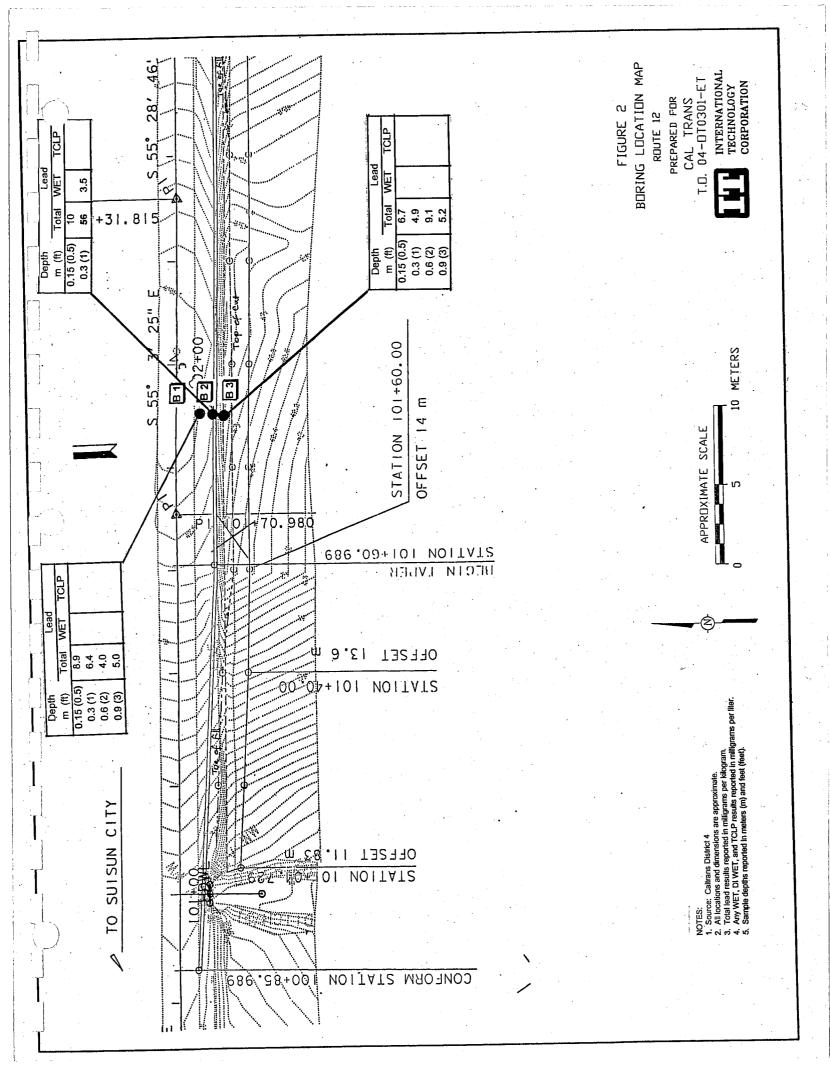
12-505

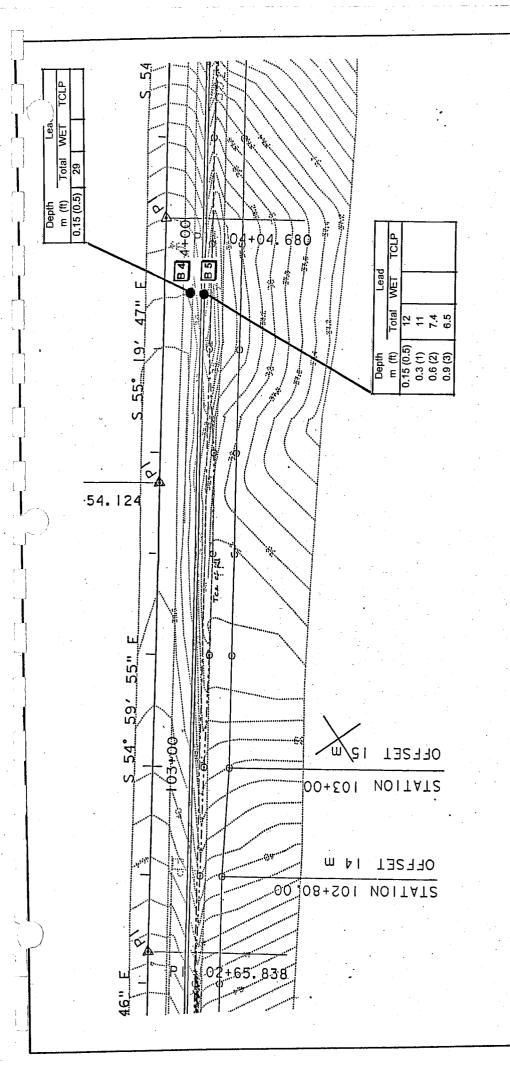
Figures

# FIGURE 1 SITE LOCATION MAP

Caltrans - Route 12 and 505 Projects







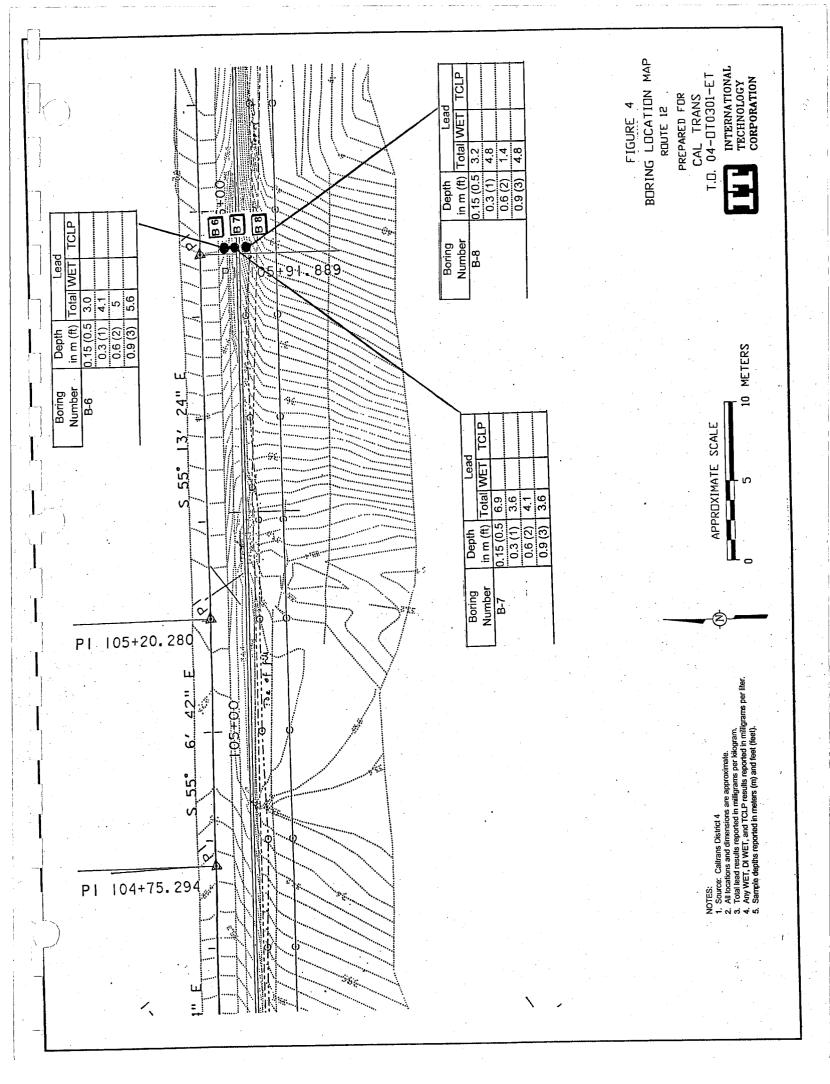
BORING LOCATION MAP INTERNATIONAL CAL TRANS T.D. 04-DT0301-ET PREPARED FOR FIGURE 3 ROUTE 12

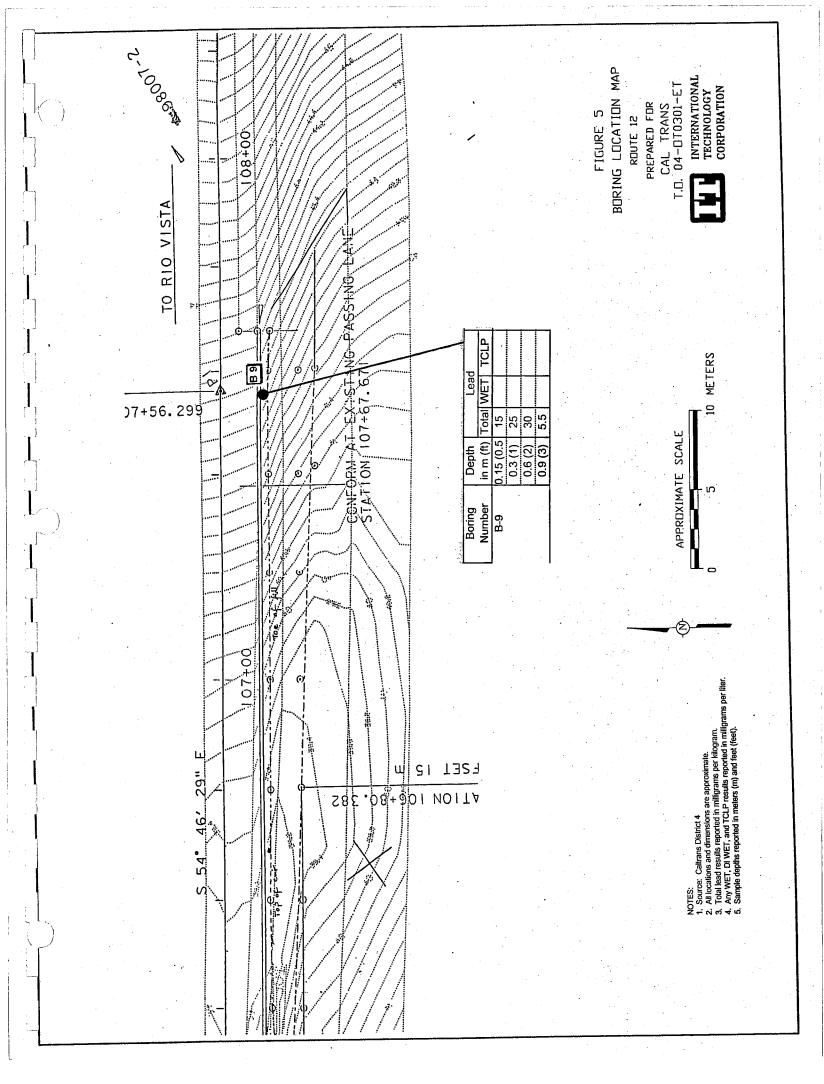


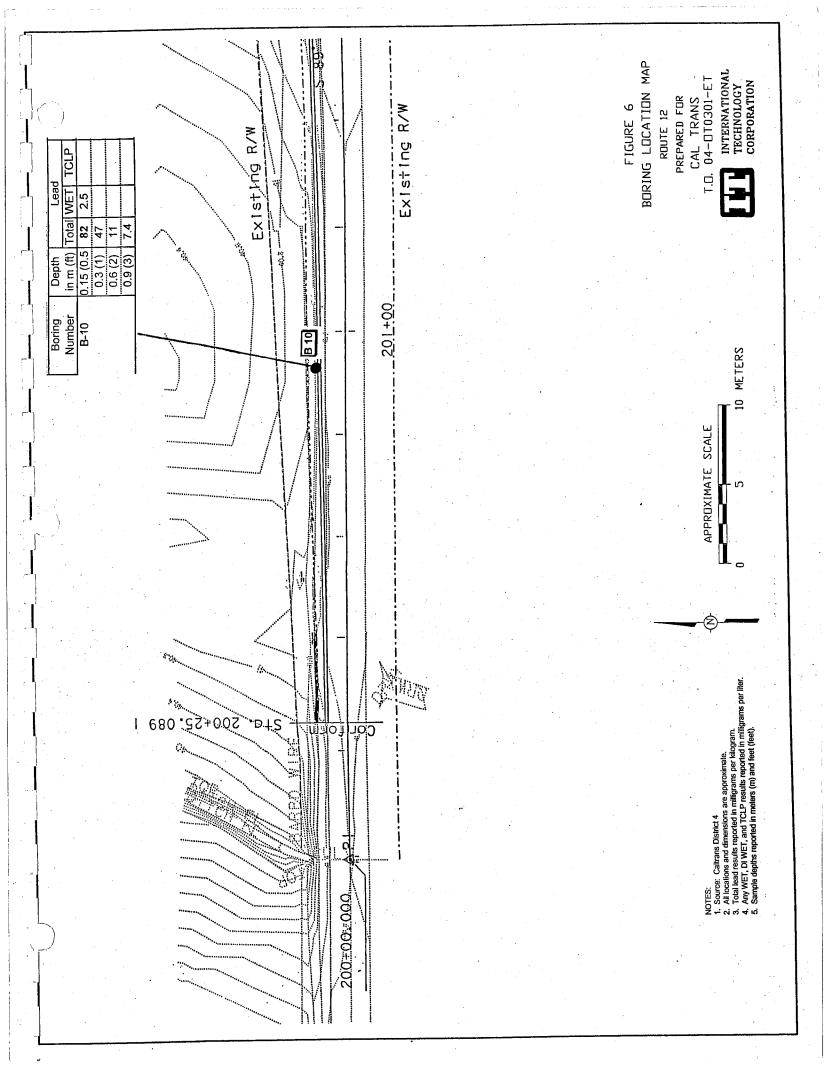


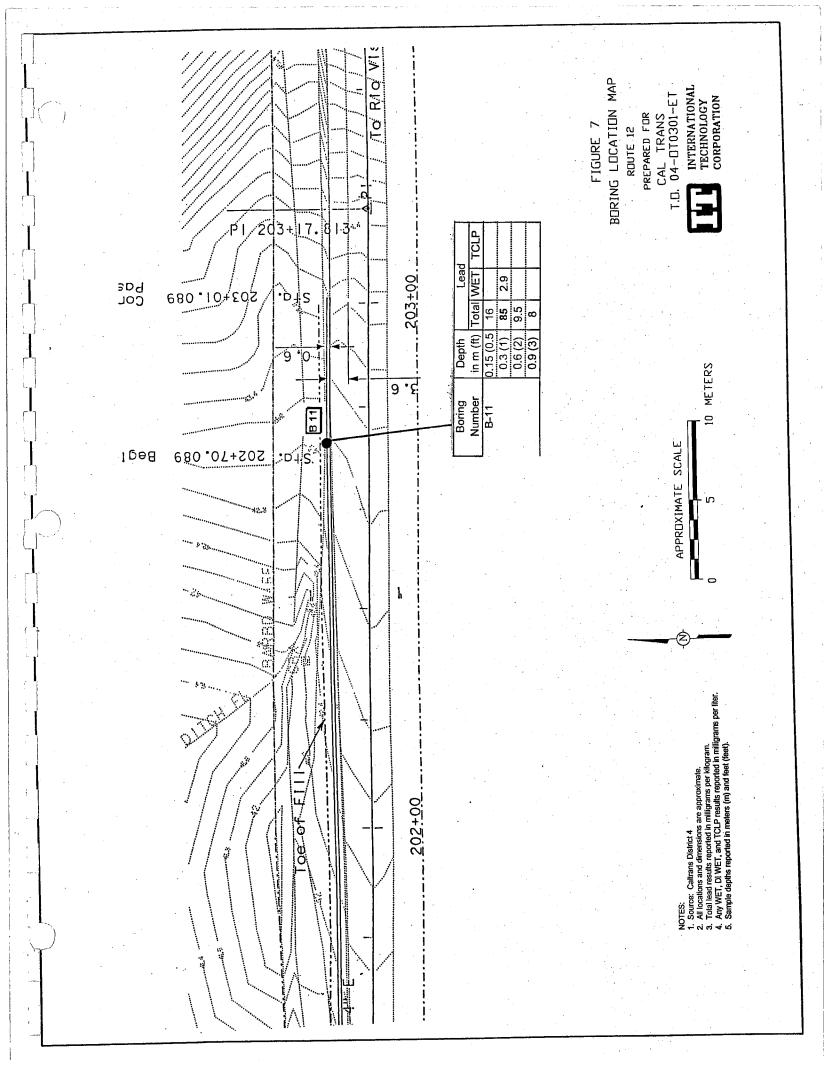


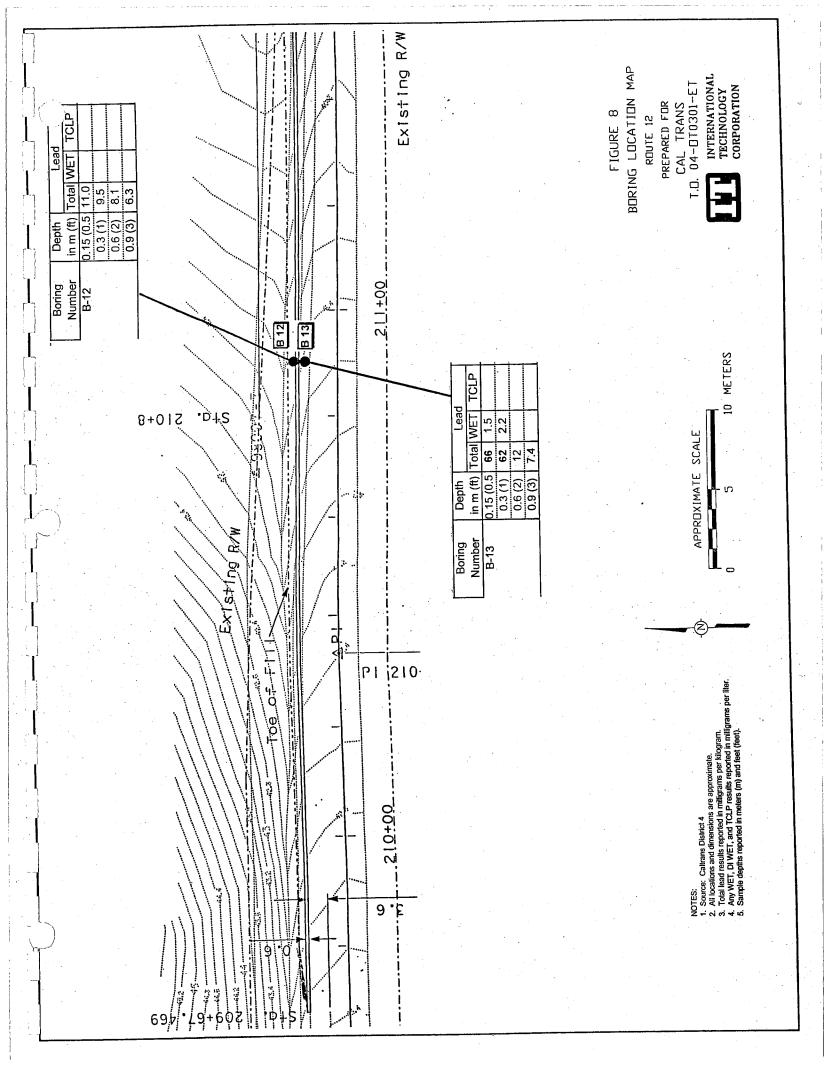
Source: Caltrans District 4
All locations and dimensions are approximate.
All locations and dimensions are approximate.
Total lead results reported in militarns per kilogram.
Any WET, DI WET, and TCLP results reported in militarns per liter.
Sample depths reported in meters (m) and feet (feet).

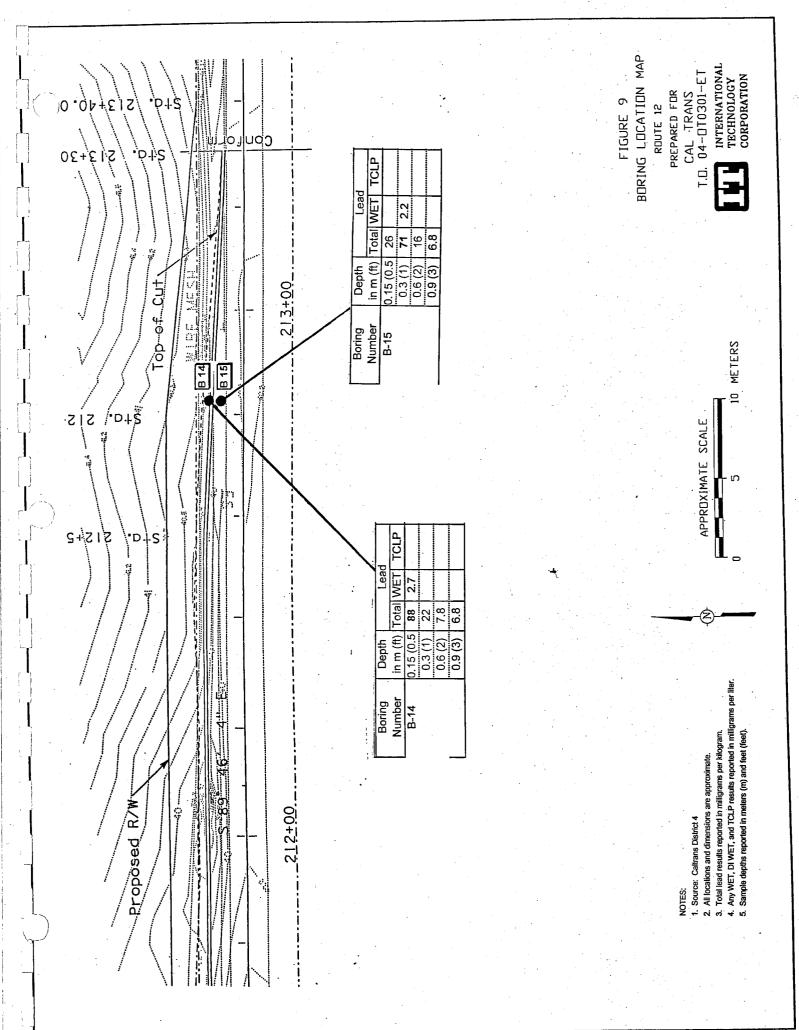


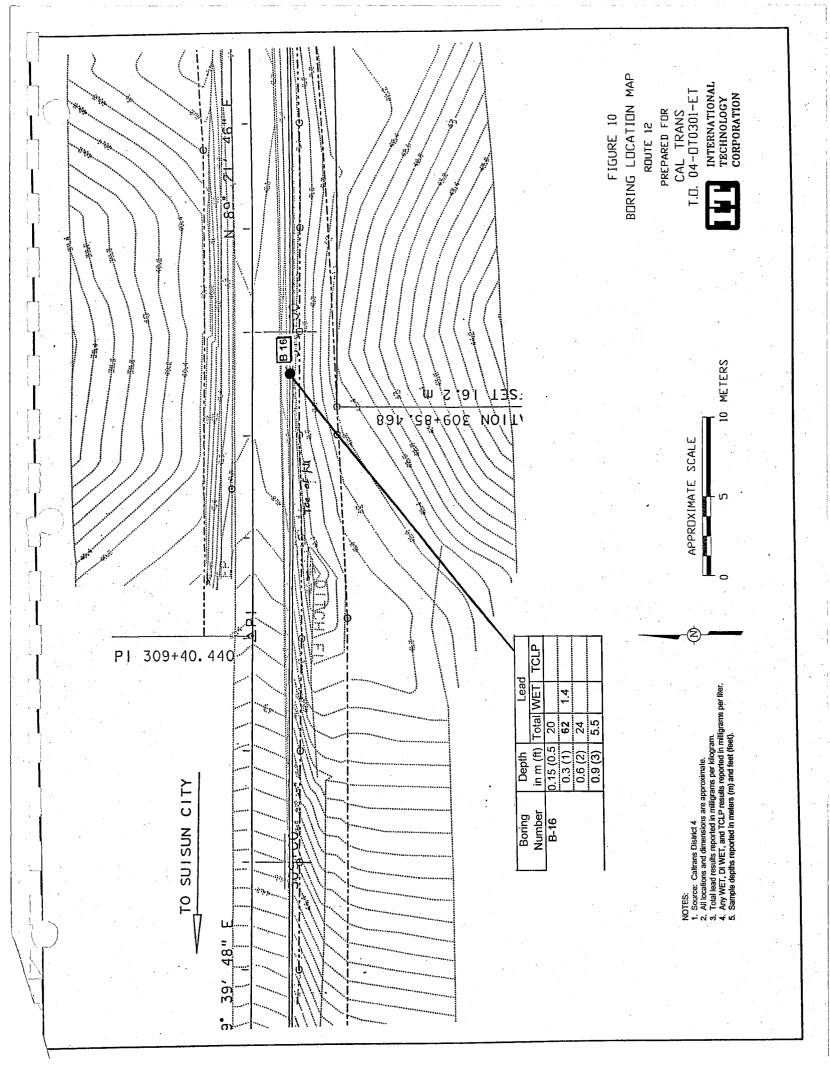


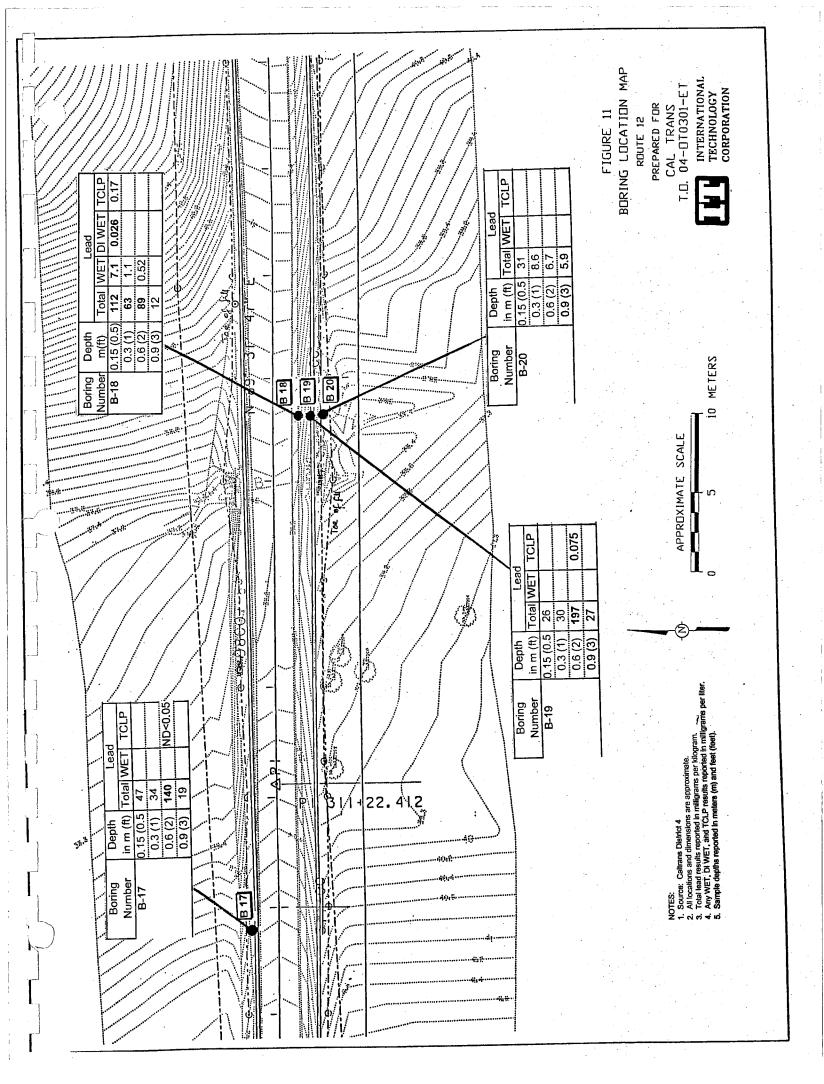


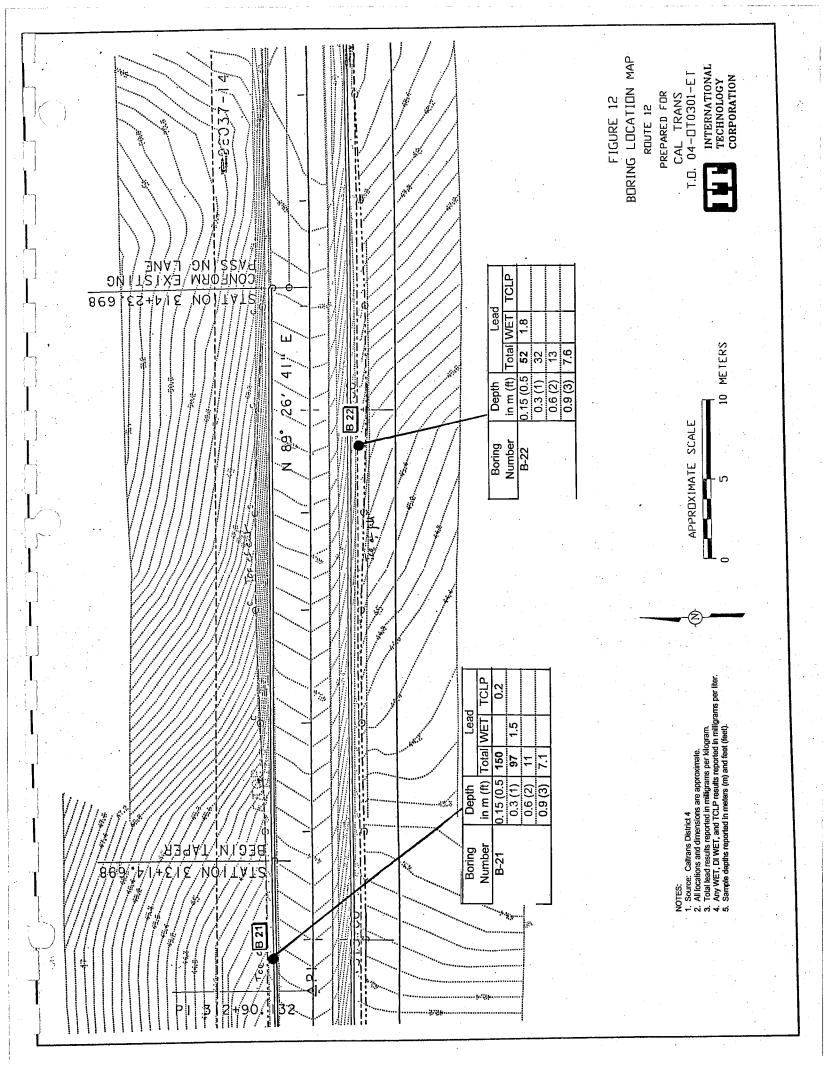


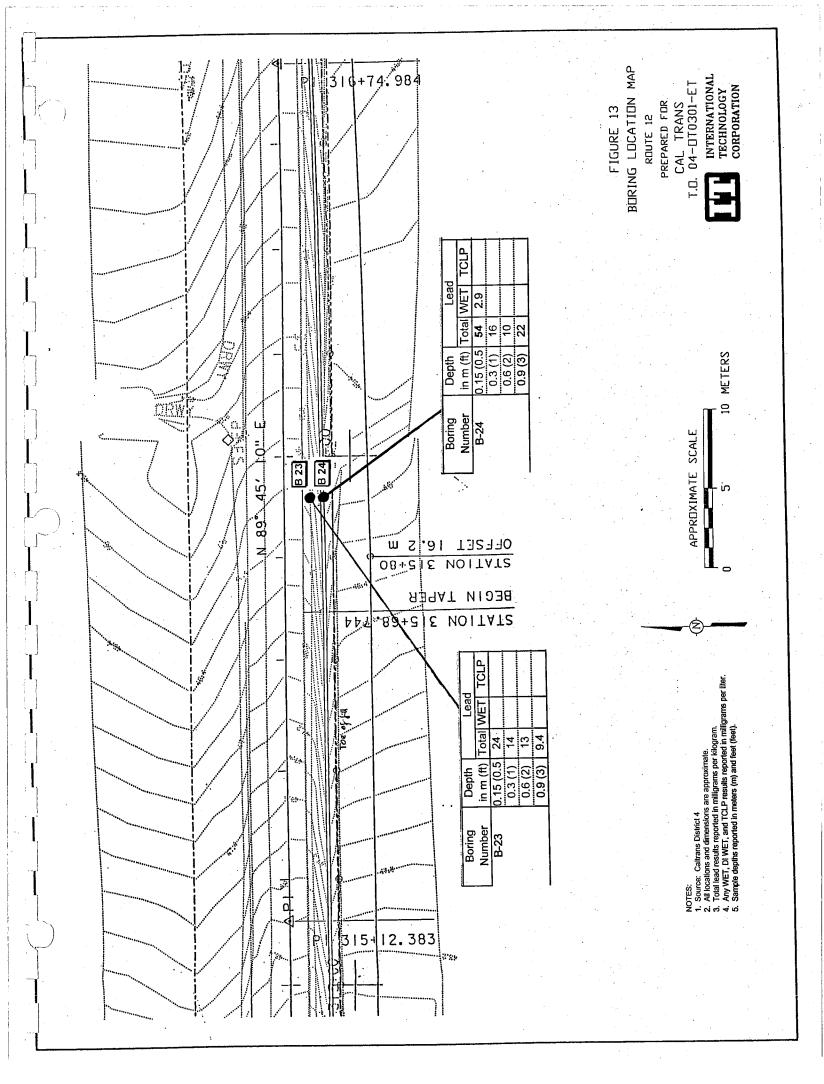


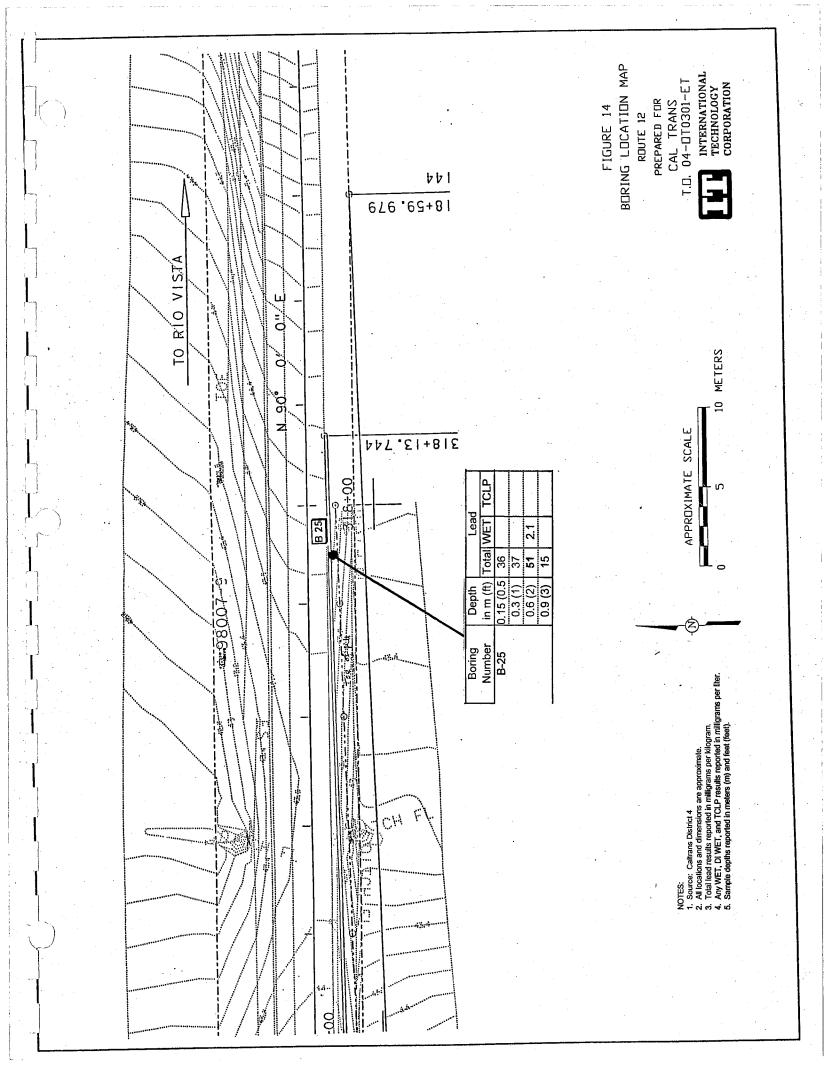


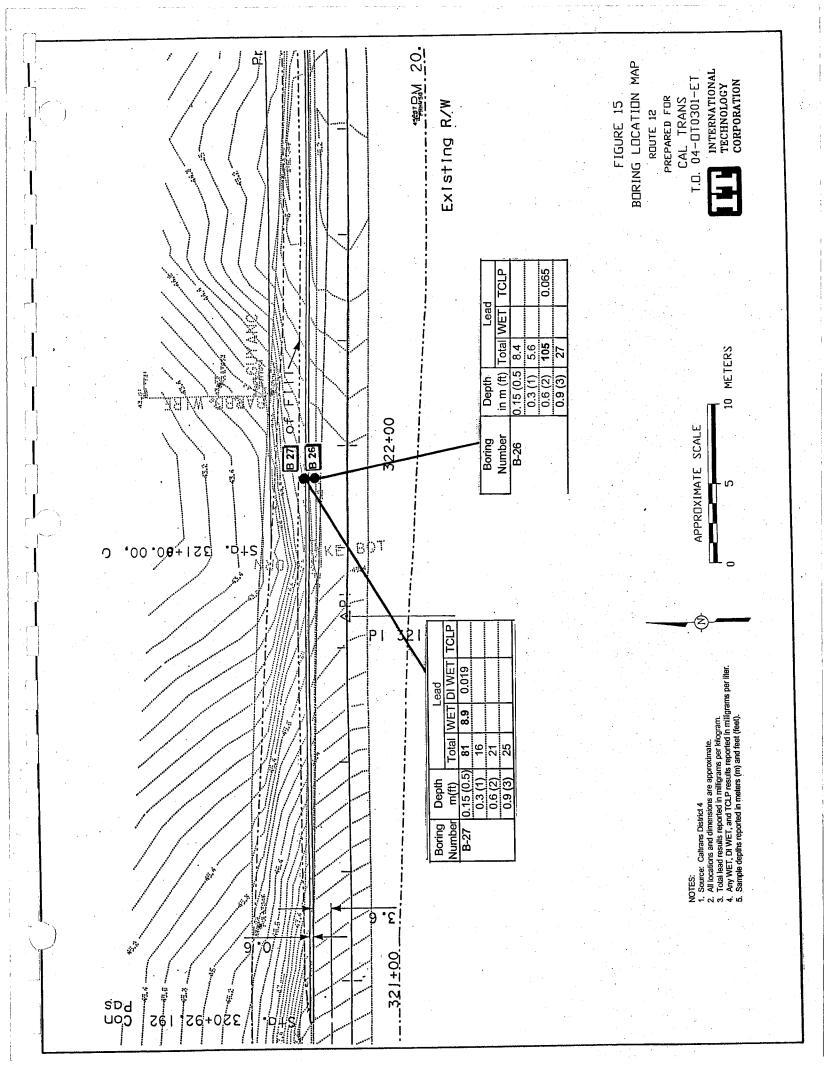


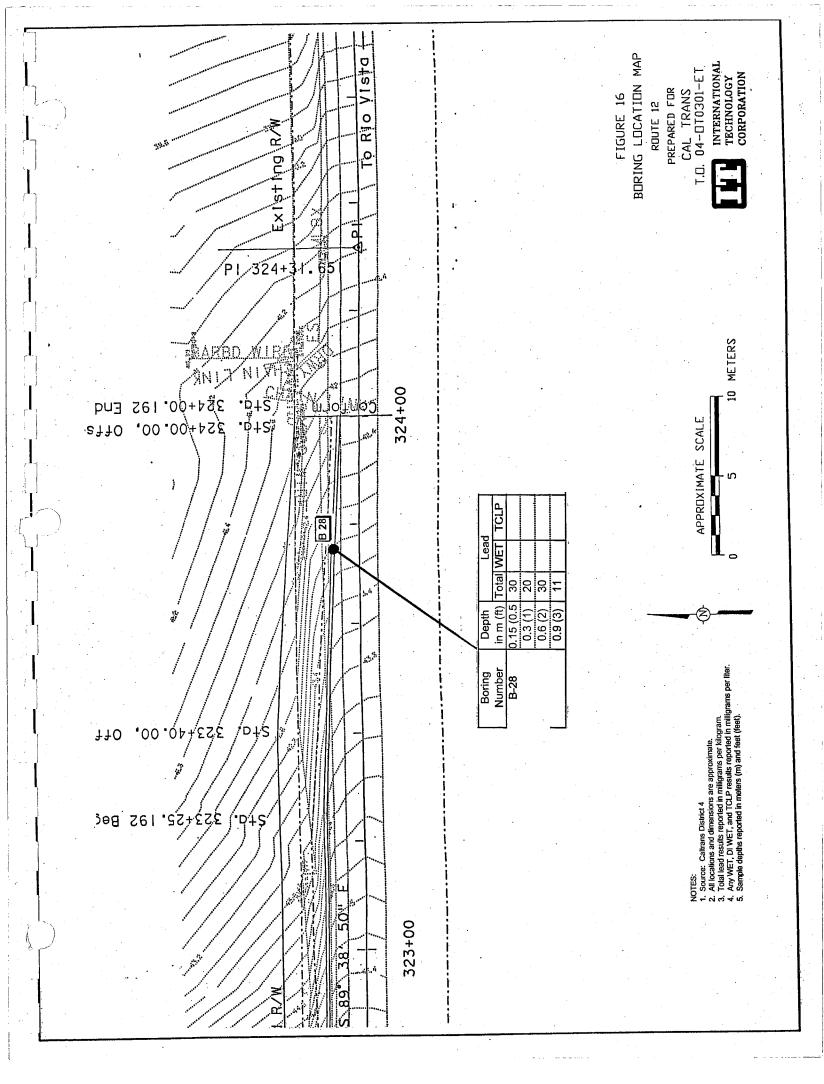


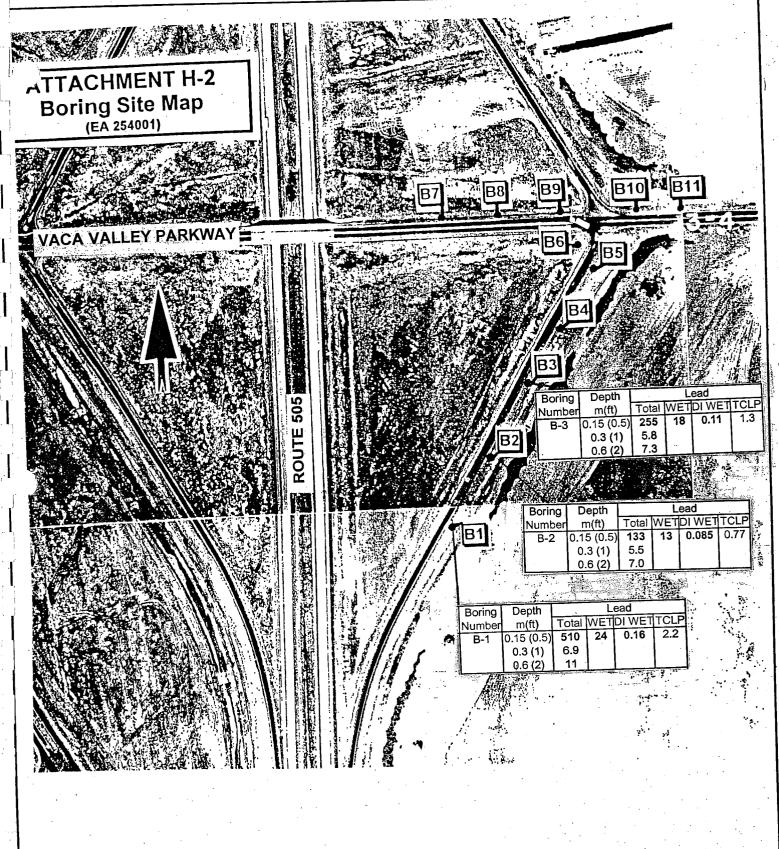












NOTES:

1. Source: Caltrans District 4
2. All locations and dimensions are approximate.
3. Total lead results reported in milligrams per kilogram.
4. Any WET, DI WET, and TCLP results reported in milligrams per liter.
5. Sample depths reported in meters (m) and feet (feet).

APPROXIMATE SCALE

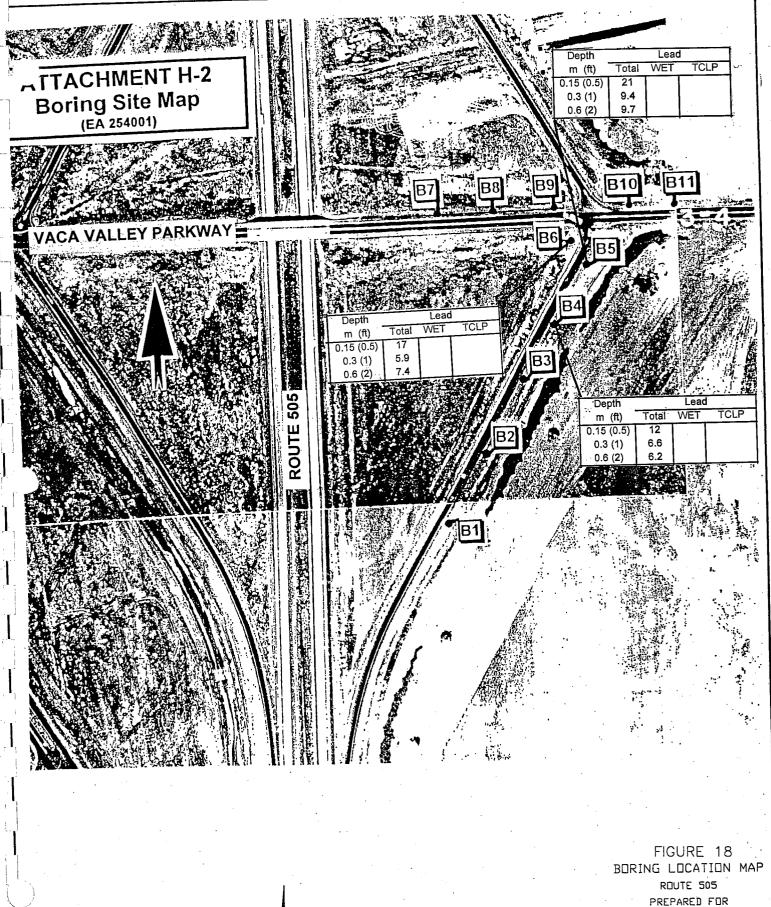
60 METERS 30

FIGURE 17 BORING LOCATION MAP ROUTE 505

PREPARED FOR CAL TRANS T.O. 04-0T0301-ET



INTERNATIONAL TECHNOLOGY CORPORATION



#### NOTES:

NOTES:

1. Source: Caltrans District 4
2. All locations and dimensions are approximate.
3. Total lead results reported in milligrams per kilogram.
4. Any WET, DI WET, and TCLP results reported in milligrams per liter.
5. Sample depths reported in meters (m) and feet (feet).

APPROXIMATE SCALE

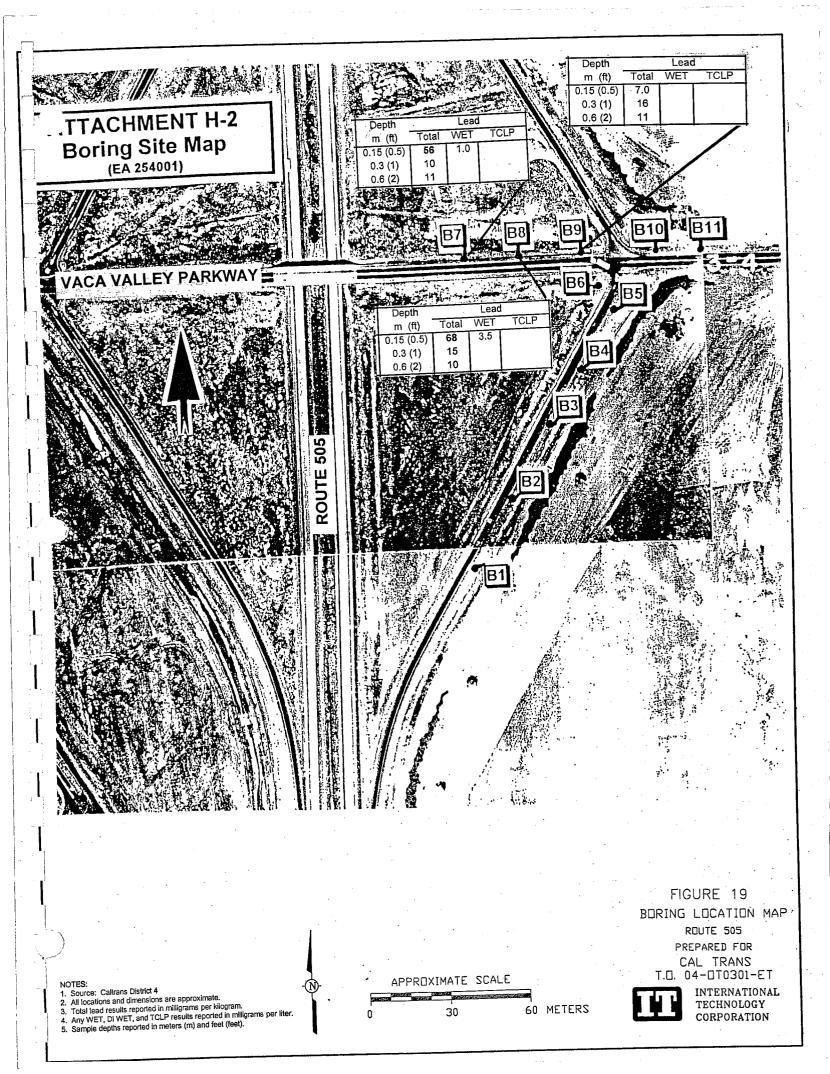
. 60 METERS

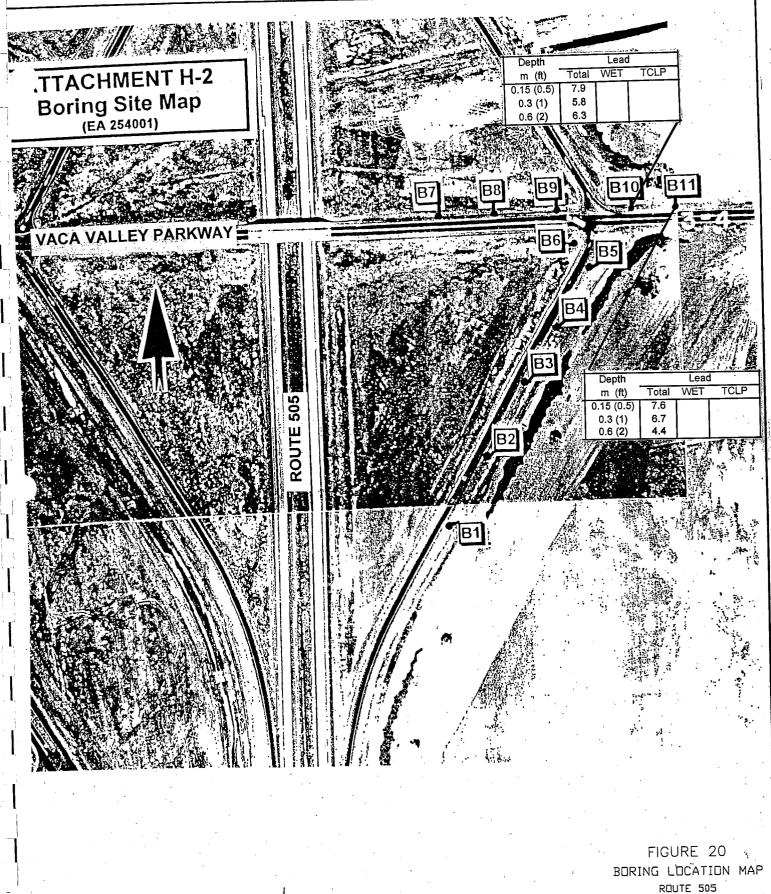
CAL TRANS

T.D. 04-DT0301-ET



INTERNATIONAL TECHNOLOGY CORPORATION





NOTES:

1. Source: Caltrans District 4

2. All locations and dimensions are approximate.

3. Total lead results reported in milligrams per kilogram.

4. Any WET, DI WET, and TCLP results reported in milligrams per liter.

5. Sample depths reported in meters (m) and feet (feet).

APPROXIMATE SCALE

60 METERS

ROUTE 505

PREPARED FOR

CAL TRANS T.D. 04-DT0301-ET



INTERNATIONAL TECHNOLOGY CORPORATION

Appendix A

Permits

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORT	ATION		
ENCROACHMENT PERMIT		Permit No.	
TR-0120		0499-NSV1540	
in compliance with (Check one):		Dist/Co/Rte/PM 04-So1-505 1.44	
•		Date	
		June 16, 1999	
Your application of May 18, 1999		Fee Paid	Deposit
Utility Notice No of		Performance Bond Amount (1)	Payment Bond Amount (2)
Agreement No. of		Bond Company	
		Bond Company	
R/W Contract No.		Bond Number (1)	Bond Number (2)
TO: IT Corporation 11315 Sunrise Gold Circle, Suite A. Rancho Cordova, CA 95742  Attn: R. David Smith Phone: (916) 858 2350		, PERMITTEE	
·			
and subject to the following, PERMISSION IS HERI	EBY GRANTED to	•	
Perform hand-auger-drilled borings to collect soil and Post Mile 1.44, in Vacaville, in the County of Solano.  Two days before work is started under this permit, notice sh			
Two days before work is started under this permit, notice should be obtained from State Representative Ed Nail,	all be given to, and ap, 2019 West Texas Stro	eet, Fairfield, CA, 94533, 707-428	8-2004.
All soil boring and sampling operations shall be cond	ucted off the travele	i way.	
When soil boring and sampling operations are being of equipment in accordance with the latest edition of the	1	ttee chall furnish place and m	aintain signs and safety Maintenance Work Zones".
			711 1 71 - 1 1
The following attachments are also included as part of this	permit (Check applica	ble): In addition to fee, to costs for:	he permittee will be billed actual
Yes ☐ No General Provisions ☐ Yes ☒ No Utility Maintenance Provisions		☐ Yes ☐	No Review
No Special Previsions			No Inspection
Yes No A Cal-OSHA permit required pri	or to beginning work:		No Field Work
#		(If any C	Caltrans effort expended)
Yes No The information in the environm	ental documentation l	as been reviewed and considered	prior to approval of this permit.
it was the work is completed before	June 30, 1999		
1 1 1	than then specifically i	nentioned is hereby authorized.	
This permit is to be strictly construed and no other work of No project work shall be commenced until all other necess	sary permits and chivin	Olimiontal Civarant	tained.
140 project work offer to contain	APP	ROVED:	
ì			
	111 4	RRY Y. YAHATA, District I	Director
	BY:		7 ,
	.	(IM) and	19
		0/1/	it Engineer
	G	J. BATTAGLINI, District Pe	rmit Engineer

NAME: IT Corporation PERMIT #: 0499-NSV1540 DATE: June 16, 1999

Traffic control is not authorized. Shoulder may be closed, and closures will be as shown on the attached copy of standard plan sheet T-10.

The attached "Freeway TCS" is for shoulder closure only.

Workers shall not cross the traveled way of access-controlled highways.

Permittee's vehicle(s) shall not interfere with the free flow of traffic or pedestrians.

All personnel shall wear hard hats and orange or approved lime green colored vests, shirts or jackets as appropriate.

Any painted markings shall be made with water-soluble paint.

Permission is also granted to park vehicles temporarily within the State's right of way, while boring work is in progress.

Changes to the Permit Provisions are not allowed without prior approval from the State Representative.

Immediately following completion of the work permitted herein, the Permittee shall fill out and mail the Notice of Completion attached to this permit.

# STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION ENCROACHMENT PERMIT GENERAL PROVISIONS TR-0045 (REV. 8/98)

- AUTHORITY: The Department's authority to issue encroachment permits is provided under, Div. 1, Chpt. 3, Art. 1, Sect. 660 to 734 of the Streets and Highways Code.
- 2. REVOCATION: Encroachment permits are revocable on five days notice unless otherwise stated on the permit and except as provided by law for public corporations, franchise holders, and utilities. These General Provisions and the Encroachment Permit Utility Provisions are subject to modification or abrogation at any time. Permittees' joint use agreements, franchise rights, reserved rights or any other agreements for operating purposes in State highway right of way are exceptions to this revocation.
- DENIAL FOR NONPAYMENT OF FEES: Failure to pay permit fees when due can result in rejection of future applications and denial of permits.
- ASSIGNMENT: No party other than the permittee or permittee's authorized agent is allowed to work under this permit.
- ACCEPTANCE OF PROVISIONS: Permittee understands and agrees to accept these General Provisions and all attachments to this permit, for any work to be performed under this permit.
- 6. BEGINNING OF WORK: When traffic is not impacted (see Number 35), the permittee shall notify the Department's representative, two (2) days before the intent to start permitted work. Permittee shall notify the Department's Representative if the work is to be interrupted for a period of five (5) days or more, unless otherwise agreed upon. All work shall be performed on weekdays during regular work hours, excluding holidays, unless otherwise specified in this permit.
- 7. STANDARDS OF CONSTRUCTION: All work performed within highway right of way shall conform to recognized construction standards and current Department Standard Specifications, Department Standard Plans High and Low Risk Facility Specifications, and Utility Special Provisions. Where reference is made to "Contractor and Engineer," these are amended to be read as "Permittee and Department representative."
- PLAN CHANGES: Changes to plans, specifications, and permit provisions are not allowed without prior approval from the State representative.
- 9. INSPECTION AND APPROVAL: All work is subject to monitoring and inspection. Upon completion of work, permittee shall request a final inspection for acceptance and approval by the Department. The local agency permittee shall not give final construction approval to its contractor until final acceptance and approval by the Department is obtained.
- 10. PERMIT AT WORKSITE: Permittee shall keep the permit package or a copy thereof, at the work site and show it upon request to any Department representative or law enforcement officer. If the permit package is not kept and made available at the work site, the work shall be suspended.
- 11. CONFLICTING ENCROACHMENTS: Permittee shall yield start of work to ongoing, prior authorized, work adjacent to or within the limits of the project site. When existing encroachments conflict with new work, the permittee shall bear all cost for rearrangements, (e.g., relocation, alteration, removal, etc.).
- 12. PERMITS FROM OTHER AGENCIES: This permit is invalidated if the permittee has not obtained all permits necessary and required by law, from the Public Utilities Commission of the State of California (PUC), California Occupational Safety and Health Administration (Cal-OSHA), or any other public agency having jurisdiction.
- 13. PEDESTRIAN AND BICYCLIST SAFETY: A safe minimum passageway of 1.21 meter (4') shall be maintained through the work area at existing pedestrian or bicycle facilities. At no time shall pedestrians be diverted onto a portion of the street used for vehicular traffic. At locations where safe alternate passageways cannot be provided, appropriate signs and barricades shall be installed at the limits of construction and in advance of the limits of construction at the nearest crosswalk or intersection to detour pedestrians to facilities across the street.
- 14. PUBLIC TRAFFIC CONTROL: As required by law, the permittee shall provide traffic control protection warning signs, lights, safety devices, etc., and take all other measures necessary for traveling public's safety. Day and night time lane closures shall comply with the Manuals of Traffic Controls, Standard Plans, and Standard

- Specifications for traffic control systems. These General Provisions are not intended to impose upon the permittee, by third parties, any duty or standard of care, greater than or different from, as required by law.
- 15. MINIMUM INTERFERENCE WITH TRAFFIC: Permittee shall plan and conduct work so as to create the least possible inconvenience to the traveling public; traffic shall not be unreasonably delayed. On conventional highways, permittee shall place properly attired flagger(s) to stop or warn the traveling public in compliance with the Manual of Traffic Controls and Instructions to Flaggers Pamphlet.
- 16. STORAGE OF EQUIPMENT AND MATERIALS: Equipment and material storage in State right of way shall comply with Standard Specifications, Standard Plans, and Special Provisions. Whenever the permittee places an obstacle within 3.63 m (12') feet of the traveled way, the permittee shall place temporary railing (Type K).
- 17. CARE OF DRAINAGE: Permittee shall provide alternate drainage for any work interfering with an existing drainage facility in compliance with the Standard Specifications, Standard Plans and/or as directed by the Department's representative.
- 18. RESTORATION AND REPAIRS IN RIGHT OF WAY: Permittee is responsible for restoration and repair of State highway right of way resulting from permitted work (State Streets and Highways Code, Sections 670 et. seq.).
- 19. RIGHT OF WAY CLEAN UP: Upon completion of work, permittee shall remove and dispose of all scraps, brush, timber, materials, etc. off the right of way. The aesthetics of the highway shall be as it was before work started.
- 20. COST OF WORK: Unless stated in the permit, or a separate written agreement, the permittee shall bear all costs incurred for work within the State right of way and waives all claims for indemnification or contribution from the State.
- ACTUAL COST BILLING: When specified in the permit, the Department will bill the permittee actual costs at the currently set hourly rate for encroachment permits.
- AS-BUILT PLANS: When required, permittee shall submit one (1) set of as-built plans in compliance with Department's requirements. Plans shall be submitted within thirty (30) days after completion and approval of work.
  - As-Built plans or accompanying correspondence shall not include disclaimer statements of any kind. Such statements shall constitute non-compliance with these provisions. Failure to provide complete and signed As-Built plans shall be cause for bond or deposit retention by the Department.
- 23. PERMITS FOR RECORD PURPOSES ONLY: When work in the right of way is within an area under a Joint Use Agreement (JUA) or a Consent to Common Use Agreement (CCUA), a fee exempt permit is issued to the permittee for the purpose of providing a notice and record of work. The Permittee's prior rights shall be preserved without the intention of creating new or different rights or obligations. "Notice and Record Purposes Only" shall be stamped across the face of the permit.
  - BONDING: The permittee shall file bond(s), in advance, in the amount set by the Department. Failure to maintain bond(s) in full force and effect will result in the Department stopping of all work and revoking permit(s). Bonds are not required of public corporations or privately owned utilities, unless permittee failed to comply with the provision and conditions under a prior permit. The surety company is responsible for any latent defects as provided in California Code of Civil Procedures, Section 337.15. Local agency permittee shall comply with requirements established as follows: In recognition that project construction work done on State property will not be directly funded and paid by State, for the purpose of protecting stop notice claimants and the interests of State relative to successful project completion, the local agency permittee agrees to require the construction contractor furnish both a payment and performance bond in the local agency's name with both bonds complying with the requirements set forth in Section 3-1.02 of State's current Standard Specifications before performing any project construction work. The local agency permittee shall defend, indemnify, and hold harmless the State, its officers and employees from all project construction related claims by contractors and all stop notice or mechanic's lien claimants. The local agency also agrees to remedy, in a timely manner and to State's satisfaction, any latent defects occurring as a result of the project construction work.
- 25. FUTURE MOVING OF INSTALLATIONS: Permittee understands and agrees to rearrange a permitted installation upon request by the Department, for State construction, reconstruction, or maintenance

work on the highway. The permittee at his sole expense, unless under a prior agreement, JUA, or a CCUA, shall comply with said request.

- ARCHAEOLOGICAL/HISTORICAL: If any archaeological or historical resources are revealed in the work vicinity, the permittee shall immediately stop work, notify the Department's representative, retain a qualified archaeologist who shall evaluate the site, and make recommendations to the Department representative regarding the continuance of work.
- PREVAILING WAGES: Work performed by or under a permit may require permittee's contractors and subcontractors to pay appropriate prevailing wages as set by the Department of Industrial Relations. Inquiries or requests for interpretations relative to enforcement of prevailing wage requirements are directed to State of California Department of Industrial Relations, 525 Golden Gate Avenue, San Francisco, California 94102.
- RESPONSIBILITY FOR DAMAGE: The State of California and all officers and employees thereof, including but not limited to the Director of Transportation and the Deputy Director, shall not be answerable or accountable in any manner for injury to or death of any person, including but not limited to the permittee, persons employed by the permittee, persons acting in behalf of the permittee, or for damage to property from any cause. The permittee shall be responsible for any liability imposed by law and for injuries to or death of any person, including but not limited to the permittee, persons employed by the permittee, persons acting in behalf of the permiittee, or for damage to property arising out of work, or other activity permitted and done by the permittee under a permit, or arising out of the failure on the permittee's part to perform his obligations under any permit in respect to maintenance or any other colligations, or resulting from defects or obstructions, or from any cause whatsoever during the progress of the work, or other activity or at any subsequent time, work or other activity is being performed under the obligations provided by and contemplated by the permit.

The permittee shall indemnify and save harmless the State of California, all officers, employees, and State's contractors, thereof, including but not limited to the Director of Transportation and the Deputy Director, from all claims, suits or actions of every name, kind and description brought for or on account of injuries to or death of any person, including but not limited to the permittee, persons employed by the permittee, persons acting in behalf of the permittee and the public, or damage to property resulting from the performance of work or other activity under the permit, or arising out of the failure on the permittee's part to perform his obligations under any permit in respect to maintenance or any other obligations, or resulting from defects or obstructions, or from any cause whatsoever during the progress of the work, or other activity or at any subsequent time, work or other activity is being performed under the obligations provided by and contemplated by the permit, except as otherwise provided by statute.

The duty of the permittee to indemnify and save harmless includes the duties to defend as set forth in Section 2778 of the Civil Code. The permittee waives any and all rights to any type of expressed or implied indemnity against the State, its officers, employees, and State contractors. It is the intent of the parties that the permittee will indemnify and hold harmless the State, its officers, employees, and State's contractors, from any and all claims, suits or actions as set forth above regardless of the existence or degree of fault or negligence, whether active or passive, primary or secondary, on the part of the State, the permittee, persons employed by the permittee, or acting on behalf of the permittee.

For the purpose of this section, "State's contractors" shall include contractors and their subcontractors under contract to the State of California performing work within the limits of this permit.

- NO PRECEDENT ESTABLISHED: This permit is issued with the understanding that it does not establish a precedent.
- FEDERAL CIVIL RIGHTS REQUIREMENTS FOR PUBLIC 30. ACCOMMODATION:

A. The permittee, for himself, his personal representative, successors in interest, and assigns as part of the consideration hereof. does hereby covenant and agree that:

1. No person on the grounds of race, color, or national origin shall be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities.

2. That in connection with the construction of any improvements on said lands and the furnishings of services thereon, no discrimination shall be practiced in the selection and retention of first-tier subcontractors in the selection of second-tier subcontractors.

3. That such discrimination shall not be practiced against the public in their access to and use of the facilities and services provided for public accommodations (such as eating, sleeping, rest, recreation),

and operation on, over, or under the space of the right of way.

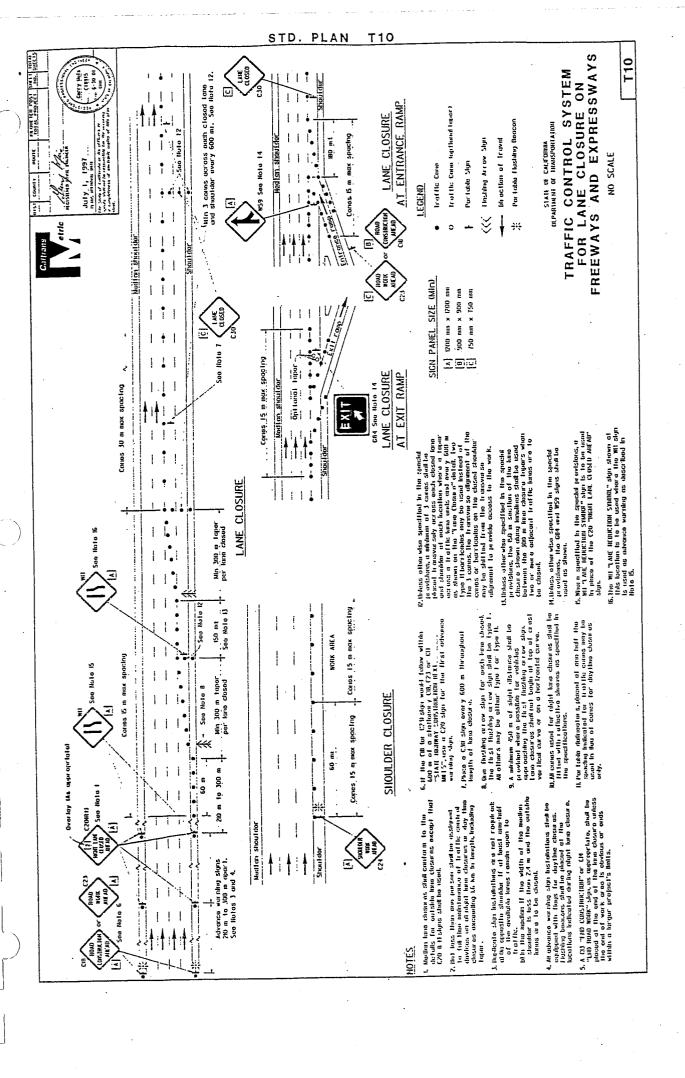
4. That the permittee shall use the premises in compliance with all other requirements imposed pursuant to Title 15, Code of Federal Regulations, Commerce and Foreign Trade, Subtitle A. Office of the Secretary of Commerce, Part 8 (15 C.F.R. Part 8) and as said Regulations may be amended.

B. That in the event of breach of any of the above nondiscrimination covenants, the State shall have the right to terminate the permit and to re-enter and repossess said land and the land and the facilities thereon, and hold the same as if said permit had never been made or issued.

- MAINTENANCE OF HIGHWAYS: The permittee agrees, by acceptance of a permit, to properly maintain any encroachment. This assurance requires the permittee to provide inspection and repair any damage, at permittee's expense, to State facilities resulting from the encroachment.
- SPECIAL EVENTS: In accordance with subdivision (a) of Streets and Highways Code Section 682.5, the Department of Transportation shall not be responsible for the conduct or operation of the permitted activity, and the applicant agrees to defend, indemnify, and hold harmless the State and the city or county against any and all claims arising out of any activity for which the permit is issued.

Permittee understands and agrees that it will comply with the obligations of Titles II and III of the Americans with Disabilities Act of 1990 in the conduct of the event, and further agrees to indemnify and save harmless the State of California, all officers and employees thereof, including but not limited to the Director of Transportation, from any claims or liability arising out of or by virtue of said Act.

- PRIVATE USE OF RIGHT OF WAY: Highway right of way shall not be used for private purposes without compensation to the State. The gifting of public property use and therefore public funds is prohibited under the California Constitution, Article 16.
- FIELD WORK REIMBURSEMENT: Permittee shall reimburse State for field work performed on permittee's behalf to correct or remedy hazards or damaged facilities, or clear debris not attended to by the permittee.
- 35. Notification of Department and TMC: The permittee shall notify the Department's representative and the Traffic Management Center (TMC) at least 7 days before initiating a lane closure or conducting an activity that may cause a traffic impact. A confirmation notification should occur 3 days before closure or other potential traffic impacts. In emergency situations when the corrective work or the emergency itself may affect traffic, TMC and the Department's representative shall be notified as soon as possible.
- 36. Underground Service Alert (USA) Notification: Any excavation requires compliance with the provisions of Government Code Section 4216 et. seq., including , but not limited to notice to a regional notification center, such as Underground Service Alert (USA). The permittee shall provide notification at least 48 hours before performing any excavation work within the right of way.



Appendix B

Drilling and Sampling Procedures

The procedures that were used for drilling the borings and collecting soil samples are presented below.

 A standard encroachment permit was obtained from Caltrans. Solano County required no drilling permit for the shallow hand auger borings.

### **Drilling and Soil Sample Collection**

- Twenty-eight soil borings along Route 12 and 11 soil borings along Route 505 were advanced to a depth of approximately 0.9 meters (3 feet) and 0.6 meters (2 feet) respectively, below the ground surface (BGS) by hand-auger soil sampling equipment.
- The drilling and sampling equipment was washed in a detergent rinse and two clear water rinses prior to drilling. No excess soil or waste water was generated or stored at the site.
- General soil descriptions, sample type and depth, and related drilling information were recorded on field forms by a sample technician from IT Corporation (IT). Copies are provided in Appendix C.
- Soil samples were collected from depths of approximately 0.15, 0.3, 0.6, and 0.9 meters (0.5, 1.0, 2.0, and 3.0 feet) BGS at the Route 12 site, and 0.15, 0.3, and 0.66 meters (0.5, 1.0, and 2.0 feet) BGS at the Route 505 site. Soil samples were collected directly from the bit-end of the hand-auger to avoid sloughed soil, and the material placed in wide mouth glass jars.
- The hand-augers were washed between sample intervals using a bristle brush with Alconox solution followed by two clear water rinses. The samplers were dried by air or with paper towels prior to sampling.
- Each sample was labeled with the sample number, date, project number, and samplers initials.
- No excess soil was generated or stored at the site.

#### Sample Retention and Analysis

- All samples were placed on ice in an insulated chest cooled to a temperature of approximately 4 degrees Celsius.
- Chain of custody procedures, including the use of chain of custody forms, were used to document sample handling and transport from collection to delivery to the laboratory for analysis.
- The samples were retained in the insulated chests preserved with ice overnight in the custody of an IT employee. The samples were either picked up within approximately 24 hours of collection by a courier supplied by the laboratory, or were delivered to the laboratory by IT personnel within approximately 24 hours of collection. The samples were transported to the laboratory in a motor vehicle.
- Soil samples were labeled with the boring number and approximate sample collection depth. For example, RT12B1-0.3, where RT12B1 is the boring number along Route 12, and -0.3 is the sample collection depth at approximately 0-.3 meters below the ground surface (A convention of "RT505B1-0.3" was used for samples collected along Route 505).
- Laboratory quality assurance/quality control procedures are summarized below:
  - Method Blank Frequency = one per 20 samples
  - Matrix Spike/Matrix Spike Duplicate = one per 20 samples
  - Laboratory Control Sample/Laboratory Control Sample Duplicate = one per 20 samples
- Information regarding sample containers, preservation, and holding times is presented in Table A-1 of the workplan (IT Corp., 1999a).

### Appendix C

Generalized Soil Classifications and Sample Collection

Documentation



<b>ASF</b> kd. By	Date		12/505 Soil Samp	Proj. No. <u>782983</u>
Time	Boring Location	sample depths(m)	soil type	notes
:00 a	12816	0.15, 0.3, 0.6,	GM (roadbase) to a	~8" Fill Dry
	12318		GM to ~6" ML to 3', "/tr. San	d +, 2.5' dry, fill
	12819	"	GM to ~8" ML to 3' W/tr. conc	rete fragments fill, moist
	/2820	"	GM to ~6" ML to 3"	fill moist below 2.5
	12822	u	GM to ~ 8" ML "/tr. sand to 3"	fill moist below 2
	12823	u	Gm to -6" ML W/tr. gravel to 3"	fill moist below 2
1:00 p.	12828	u	GM to ~ 8" SW "/silt + gravel to 3"	fill, moist below 2.
	12825	4	GM to ~8" ML/SM to 2.3' ML to 3'	fill limonitic, dry moist below 2.3
	12826	u	Gm to ~6" SW "/silt+gravel to 3"	fill fill
	12827	n	gm to ~8" Sw/Gw "/silt to 3"	



by MSF	_Date	<i>R+ 12</i> Subject <i>≤R++1</i> 3	505 Soil Sampling	Sheet No2 of3
Chkd. By	_Date Boring location	Sample depths (m)	soil type	Proj. No
	12824	0.15,0.3,0.6,0.9	GM to ~8 " ML "tr. gravel to 3'	fill, moist below 2.5'
•	1282/	V <sub>4</sub>	GM to ~8" ML W/sand to 3'	fill, moist below 2.5
.م 1:30	12817	<b>"</b>	Gm to ~ 8" ml to 3'	fill moist below 2.8'
	12815	· · · · · · · · · · · · · · · · · · ·	GM to ~8" ML Ysand +tr. gravel	fill, moist below 2.5
)	12814	<i>'</i> /	gm to ~6" mc "/sand to 3"	fill moist below 2.5'
	12813	4	GM to ~ 8" ml Ysand to 3'	fill moist below 2.8'
	12812	ų	Gm to ~6"	fil
	12817	V	GM to ~ 6" ML " Sand to 3'	fill moist @ 3'
	1281	<b>v</b>	GM to ~ 1' Sm/me to 3'	
. )	1282	0.15, 0.3	gm to 1'	fill, dry, bit refusal@1 2' drilled for 1'rec.
-/	1283	0.15, 0.3,0.6,0.	me to 3'	dey



Date 06/16/99 Subject \_ Rt. 12/505 Soil Sampling Sheet No. 3 of 3 Proj. No. 782983 Chkd. By\_ notes Soil type Sample depths Boring. location Time dry, bit refusal (3x)
18" drilled for 6"rec. GM to 6" 0.15 1284 SM to 3' 0.15,0.3,0.6,0.9 1285 Sm to 3 1286 sm to 3' 1207 Sm to 2' 1288 ML to 3' Gm to ~6" 4:15 p 1289 sm/ml to 3



FIFI	חו	AC	TIVI'	TY D	AIL	_Y I	LOG
		$\neg$			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		

OG	DATE	06	19	99
	NO.			
DAILY	SHEET	1	OF	1

PROJECT NAME:	Caltran	ns let 17	2/505	)	PROJECT NO.	782983
FIELD ACTIVITY	SUBJECT: Soil	ns lt 17 Sampl	ing			
DESCRIPTION OF	F DAILY ACTIVITIES AND	EVENTS:	0		<del></del>	
Time	Borne	sample depths		Soil type		otes
	Boring, Location	depths	(m) -			
	505B1	0.15,0.3,	0.66	GM to -	gravel to 2	
				\$W 7/5,14 +	growe to 3	dry
8:00	50582			tı l		14
	50583	<u> </u>		u		.4
	50584	W		. 11		
	50585			11		6
8:45	50586	_   ''		15		
	505B7	11		GM to 2		
						i.
9-30	50588	14		64		- '9
				11		
	50589					
		4				moist
	5051310			SM/ML-to	4	Wigist
	C- C 2 2 2	_		11		
9 00 VISITORS ON S	505B11		CHANGES	S FROM PLANS AN	D SPECIFICATION	IS, AND
VISITORS ON S			OTHER S	PECIAL ORDERS A	ND IMPORTANT [	DECISIONS.
WEATHER CON	IDITIONS:		IMPORTA	NT TELEPHONE C	ALLS:	
	C(ear		:			
.1						
					· .	
	ON SITE: ASF				DATE:	1/10/00
SIGNATURE:	A CONTRACTOR OF THE CONTRACTOR				DATE:	06/19/99

Appendix D

Laboratory Analytical Reports



June 22, 1999

Invoice #:

11216

Project Name:

Caltrans Rte. 12

Project #:

782983

Mr. Dave Smith IT Corporation 11315 Sunrise Gold Cir., Ste. A Rancho Cordova, CA 95814

Mr. Dave Smith,

Enclosed are the analytical results for our invoice #11216. The samples were received at Sparger Technology Analytical Lab on June 18, 1999.

The samples were received in EPA specified containers. The samples were transported and received under documented chain of custody and stored at four (4) degrees C until analysis was performed.

The report consists of the following sections:

- Sample Description & Analysis Request
- II. Quality Control Report
- III. Analysis Results

No problems were encountered with the analysis of your samples.

If you require additional information please give us a call at (916) 362-8947.

Sincerely,

R. L. James

**Laboratory Director** 



Laborato	ry ID	Matrix	Sample Date	Sample ID	Analysis Description
11126	0.01	S	6/18/99	12B1 - 0.15	6010
11126	002	S	6/18/99	1281 - 0.3	9045
					6010
11126	003	S	6/18/99	1281 - 0.6	6010
11126	004	, S	6/18/99	1281 - 0.9	6010
11126	. 005	S.	6/18/99	12B2 - 0.15	6010
11126	006	S	6/18/99	12B2 : 0-3	6010
11126	- 007	S	6/18/99	12835.0.15	6010
11126	- 008	S	6/18/99	1283 - 0.3 (1.7) - 1.50 (1.5)	6010
11126	009	S.	6/18/99	1283 - 0.6	6010
11126	010	S	6/18/99	12B3 - 0.9	6010
11126	011	S:	6/18/99	1284 - 0.115	6010
11126	012	S	6/18/99	12B5 - 0.15	6010
11126	. 013	S	6/18/99	1285 0.3	6010
11126	014	⊩S-	6/18/99	12B5= 0.6	6010
11126	.015	S	6/18/99	1285 - 0.9	6010
11126	016		6/18/99	1286 - 0.15	6010
11126	017	Code:   with the section of the sect	6/18/99	1286 - 10.3	6010
11126	018	S	6/18/99	1286-09	6010
11126	019	S	6/18/99	1287 - 0.15	6010
11126	020	. S	6/18/99	1287 - 0.3	6010
11126	021	S	6/18/99	1287-0.6	6010
11126	022	S	- 6/18/99	1287 - 0.9	6010
11126	1023	(1011) - 100-00110-00-00-10-10-10-10-10-10-10-10-	6/18/99	12B8 - 0.15	6010
11126	024	S.	6/48/99	1288-031	6010
11126.	025	The or of the second section and the second	6/18/99-	1288-0.61	6010
11126	- 026	S	6/18/99	1288-09-55-11-6	6010
11126	027	S	6/18/99	1289-0(15)	6010
11126	028	i s	6/18/99	1289 - 0.3	9045
					6010
11126	029	Contents of the Contents of the Contents	The state of the s	1289 - 0.6	6010
11126	030	S	6/18/99	12B9-0.9	6010
11126	031	S	6/18/99	12B10 - 0.15	6010



Laboratory ID	Matrix Sample Date	Sample ID	Analysis Description
11126 032	S 6/18/99	12B10 - 10.3	6010
11126 033	- Sz.   - 6/18/99	12810-0.6	6010
11126 034	S. 6/18/99	12B10 - 0.9:	6010
11126 035	S 6/18/99	12B11-0:15	6010
11126 036	S. 6/18/99	12811 - 0.3	6010
11126 037	S 6/18/99	12811 - 0.6	6010
11126 038.	'S 6/18/99	12811 - 0 9 - 1 - 1 - 1	6010
11126 039	6/18/99	12B12-015 4 5 1	6010
11126 040:	US/1412-6/18/99/	12812-0.3	6010
11126 - 041	S 6/18/99	12B12 - 0.6	6010
11126 042	- S - 6/18/99	12B12 - 0.91	6010
11126 043	S= 6/18/99	12B13 - 0.15	6010
11126 044	S 6/18/99	12B13 - 0 3	6010
11126 / 045	S: 6/18/99:	12813 - 0.6	6010
11126 046	S 6/18/99	12B13 - 0.9	6010
11126 047	S. 6/18/99	12B14 - 0.15	6010
11126 . 048	S 6/18/99	12B14 - 0.3	6010
11126 049	S 6/18/99	. 12B14 - 0.6	6010
11126 050	S 6/18/99	12B14 - 0.9	6010
11126 051	S: 6/18/99	12B15 - 0.15	6010
11126052	S 6/18/99	12815 - 0.3 4: 1	6010
11126	S: 6/18/99	12815-061	6010
11126	S 6/18/99	12B15 - 0.9*	6010
11126 055	ESA - 6/18/99:-	12B16 - 0.15	6010
11126 056	- LSH - 6/18/99	12816-0.3	6010
11126 4 057	S 6/18/99	12816 - 0.60 :	6010
11126 - 058	S. 4 6/18/99	12B16+0.9	6010
11126	S 6/18/99	12817 - 0.15	9045
Scientific Standard under Lander Control of			6010
11126 060	S.   + 6/18/99	12817 - 0.3 **** 1.2 ******************************	6010
11126 061		12817 - 0.6	6010
11126	S 6/18/99	12817 - 0.9	6010
11126 063	6/18/99	12B18:-0.15	6010



Laboratory I	D	Matrix	Sample Date	Sample ID	Analysis Description
11126	064	l S-	6/18/99	12B18=0.3=	6010
11126	065	S.	6/18/99	12B18 - 0.61	6010
11126	066	S	6/18/99	12B18 - 0.9 - 1	6010
11126	067	S	6/18/99	12B19 - 0.15	6010
11126	068	S	6/18/99	12B19 - 0.3	6010
11126	069	S	.v6/18/99	12B19-06	6010
11126	070	S	6/18/99	12B19-0.9	6010
11126	071	S	6/18/99	12B20 - 0.15	6010
11126	072	S	6/18/99	12B20 - 0.3	6010
11126	073	S	6/18/99	12B20 - 0 6.7	6010
11126	074	S	6/18/99	12B20 0.9 12 12 12 13 14 14 14 14 14 14 14 14 14 14 14 14 14	6010
11126	075	S	. 14·6/18/99	12B21=0:15 (12B21)	6010
11126	076	S	6/18/99	12821 - 0.3	6010
11126	077	S	6/18/99	12B21 - 0.6	6010
11126	078	S.	6/18/99	12821 - 0.9	6010
11126	079	S	6/18/99	12B22 - 0.15	6010
11126	080	S	6/18/99	12822 - 0.3	6010
11126	081	S	£ 6/18/99: ±	12B22 = 0.6	6010
111126	082	S	6/18/99	12B22: 0.9	6010
11126	083	· S:	6/18/99	12B23 = 0.15	6010
11126	084	S	6/18/99	12B23 - 0.3	6010
11126	085	S	6/18/99	12B23 0 6	6010
11126	.086	S	6/18/99.	12B23 - 0.9 - 15 - 12 - 13 - 15 - 15 - 15	6010
11126	087	S.	6/18/99	12824 - 0.15	6010
1112655	088	S	6/18/99	12824 - 0.3	6010
111261	089	S	6/18/99	12824 - 0.6	6010
11126	090	S	6/18/99	12B24 - 0.9 / 12	6010
11126	091			12825 - 0.15	6010
11126	092.	S		12B25 - 0.3	6010
11126	093	201	6/18/99	12B25 - 0.6	6010
11126	094	S:	6/18/99	12825 - 0.9	6010
11126	095	S	6/18/99	12B26 - 0:15	6010
11126	096	-St	6/18/99	12826 - 0.3	6010



Laboratory	· ID	Matrix	Sample Date	Sample ID	Analysis Description
72/2/6/6	097	- S	6/18/99	12B26 - 0.6	6010
11126					
11126	098	S		12B26 - 0.9	6010
11126	099	S.	6/18/99	12B27 - 0.15	6010
11126	100	I S	6/18/99	12B2703	6010
11126	101	s Sa	6/18/99	12B27 - 0.6i s : 1.1.1	6010
11126	102	S:	6/18/99	12B27 = 0.9 ; 11 ; 12 ; 13 ; 14 ; 15 ; 15 ; 15 ; 15 ; 15 ; 15 ; 15	6010
11126	103	S	. 6/18/99	128231-0.15	6010
11126	104	S	6/18/99	12828 - 0.8	6010
11126	105	S	6/18/99	12B28 - 0.6	9045
			( Company of the Comp		6010
11126	106	S	6/18/99	12828-0.9	6010



#### II Quality Control

- A. <u>Project Specific QC</u>. No project specific QC (i.e., spikes and/or duplicates) was requested.
- B. <u>Method Blank Results</u>. A method blank is a laboratory-generated sample which assesses the degree to which laboratory operations and procedures cause false-positive analytical results for your sample.

No target parameters were detected in the method blank associated with your sample at the reporting limit levels noted on the data sheets in the Analytical Results section.

- C. <u>Laboratory Control Spike</u>. A Laboratory Control Spike (LCS) is a sample which is spiked with known analyte concentrations, and analyzed at approximately 10% of the sample load in order to establish method-specific control limits. The LCS results associated with your samples are on the attached Laboratory Control Spike and Laboratory Control Spike Duplicate Analysis Report.
- D. Matrix Spike Results. A Matrix Spike is a sample which is spiked with known analyte concentrations, and analyzed at approximately 10% of the sample load in order to establish method-specific control limits. The Matrix Spike results associated with your samples are on the attached Matrix Spike and Matrix Spike Duplicate Analysis Report.

Accuracy is measured by Percent Recovery as in:

% recovery =  $(measured concentration) \times 100$  (actual concentration)

#### III Analysis Results

Results are on the attached data sheets.



### EPA Method 9045 pH

Attention:

Mr. Dave Smith

Date Sampled:

Jun 18, 1999

IT Corporation

Date Received:

Jun 18, 1999

11315 Sunrise Gold Cir., Ste. A

Date Analyzed:

Jun 22, 1999

Rancho Cordova, CA 95814

Invoice #:

11216JUN99

Project #:

782983

Project Name:

Caltrans Rte. 12

Matrix:

Soil

Dilution:

1

	Client ID	Lab ID	Amount	Limit
рН	12B1 - 0.3	11216-002A	6.4	N.A.
рН	12B9 - 0.3	11216-029A	6.4	N.A.
рН	12B17 - 0.15	11216-060A	6.5	N.A.
рН	12B28 - 0.6	11216-105A	6.6	N.A.

N.A. = Not Applicable

E. McKinney, Inorganics Manager

Jun 22, 1999

Date Reported

SPARGER TECHNOLOGY ANALYTICAL LABORATORY, INC. IS CERTIFIED BY THE STATE OF CALIFORNIA DEPARTMENT OF HEALTH SERVICES AS A HAZARDOUS WASTE TESTING LABORATORY

(Certification No. 1614)

N.D. = Not Detected. Compound(s) may be present at concentrations below the detection limit.

N.R. = Not Requested.



### **EPA Method 6010** Lead **Method Blank**

Attention:

Mr. Dave Smith

IT Corporation

11315 Sunrise Gold Cir., Ste. A

Rancho Cordova, CA 95814

Date Sampled:

Jun 18, 1999

Date Received:

Jun 18, 1999

Date Digested: Date Analyzed: Jun 21, 1999 Jun 21, 1999

11216JUN99

Invoice #:

Project #:

782983

Project Name:

Caltrans Rte. 12

Client ID:

Method Blank

LAB ID:

990621A

Matrix:

Soil

Dilution:

1:

		Reporting	
Name	Concentration	Limit	Units
Lead (Pb)	ND	1.0	mg/kg

ppm= parts per million = mg/l = milligram per liter.

ND = Not Detected. Compound(s) may be present at concentrations below the detection limit.

McKinney, Inorganics Manager

Jun 21, 1999

SPARGER TECHNOLOGY ANALYTICAL LABORATORY, INC. IS CERTIFIED BY THE STATE OF CALIFORNIA DEPARTMENT OF HEALTH SERVICES AS A HAZARDOUS WASTE TESTING LABORATORY (Certification No. 1614)

6010mbs



## **EPA Method 6010** Lead LCS / LCSD Recoveries

Attention:

Mr. Dave Smith

Date Sampled:

Jun 18, 1999

**IT** Corporation

Date Received:

Jun 18, 1999

11315 Sunrise Gold Cir., Ste. A

Date Digested:

Jun 21, 1999

Rancho Cordova, CA 95814

Date Analyzed: Jun 21, 1999

Invoice #:

11216JUN99

Project #:

782983

Project Name:

Caltrans Rte. 12

Client ID:

LCS/LCSD

LAB ID:

990621A

Matrix:

Soil

Dilution:

1:

Units: (mg/kg)

			J J			
Element	Spike Conc.	LCS	% Recovery	Duplicate LCS	Duplicate % Recovery	% RPD
Lead (Pb)	50.0	54.0	108%	50.3	101%	7.1%

ppm= parts per million = mg/L = milligram per liter

ND = Not Detected. Compound(s) may be present at concentrations below the detection limit.

E. McKinney, Inorganics Manager

Jun 21, 1999

Date Reported

SPARGER TECHNOLOGY ANALYTICAL LABORATORY, INC. IS CERTIFIED BY THE STATE OF CALIFORNIA DEPARTMENT OF HEALTH SERVICES AS A HAZARDOUS WASTE TESTING LABORATORY (Certification No. 1614)

6010lcss



### EPA Method 6010 Lead MS/MSD Recoveries

Attention:

Mr. Dave Smith

IT Corporation

11315 Sunrise Gold Cir., Ste. A

Rancho Cordova, CA 95814

Date Sampled:

ed: Jun 18, 1999

Date Received: Jun 18, 1999

Date Digested:

Jun 21, 1999

Date Analyzed: Invoice #:

Jun 21, 1999 11216JUN99

Project #:

782983

Project Name:

Caltrans Rte. 12

Client ID:

MS/MSD

LAB ID:

11216-001A

Matrix:

Soil

Dilution:

1:

Units: (ma/ka)

			_	11110 1 (1119.119)			
Element	Sample Conc.	Spike Conc.	MS	% Recovery	Duplicate MSD	Duplicate % Recovery	% RPD
Lead (Pb)	8.88	50.0	54.8	91.8%	60.9	104%	12%
1							

ppm= parts per million = mg/L = milligram per liter

ND = Not Detected. Compound(s) may be present at concentrations below the detection limit.

E. McKinney, Inorganics Manager

Jun 21, 1999

Date Reported

SPARGER TECHNOLOGY ANALYTICAL LABORATORY, INC. IS CERTIFIED BY THE STATE OF CALIFORNIA DEPARTMENT OF HEALTH SERVICES AS A HAZARDOUS WASTE TESTING LABORATORY

(Certification No. 1614)



#### EPA Method 6010 Lead

Attention:

Mr. Dave Smith

IT Corporation

11315 Sunrise Gold Cir., Ste. A

Rancho Cordova, CA 95814

Date Sampled:

Jun 18, 1999

Date Received:

Jun 18, 1999

Date Digested:
Date Analyzed:

Jun 21, 1999 Jun 21, 1999

Invoice #:

11216JUN99

Project #:

782983

Project Name:

Caltrans Rte. 12

Matrix:

Soil

Dilution:

1: 1

				Reporting		
Name	LAB ID	Client ID	Concentration	Limit	Units	
Lead (Pb)	11216-001A	12B1 - 0.15	8.9	1.0	mg/kg	
Lead (Pb)	11216-002A	12B1 - 0.3	6.4	1.0	mg/kg	
Lead (Pb)	11216-003A	12B1 - 0.6	4.0	1.0	mg/kg	
Lead (Pb)	11216-004A	12B1 - 0.9	5.0	1.0	mg/kg	
Lead (Pb)	11216-005A	12B2 - 0.15	10	1.0	mg/kg	
Lead (Pb)	11216-006A	12B2 - 0.3	56	1.0	mg/kg	
Lead (Pb)	11216-007A	12B3 - 0.15	6.7	1.0	mg/kg	
Lead (Pb)	11216-008A	12B3 - 0.3	4.9	1.0	mg/kg	
Lead (Pb)	11216-009A	12B3 - 0.6	9.1	1.0	mg/kg	
Lead (Pb)	11216-010A	12B3 - 0.9	5.2	1.0	mg/kg	

ppm= parts per million = mg/L = milligram per liter

ND = Not Detected. Compound(s) may be present at concentrations below the detection limit.

E. McKinney, Inorganics Manager

Jun 21, 1999

Date Reported

SPARGER TECHNOLOGY ANALYTICAL LABORATORY, INC. IS CERTIFIED BY THE STATE OF CALIFORNIA DEPARTMENT OF HEALTH SERVICES AS A HAZARDOUS WASTE TESTING LABORATORY (Certification No. 1614)



### **EPA Method 6010** Lead

Attention:

Mr. Dave Smith

Date Sampled:

Jun 18, 1999

**IT Corporation** 

Date Received:

Jun 18, 1999

11315 Sunrise Gold Cir., Ste. A

Date Digested:

Invoice #:

Jun 21, 1999

Rancho Cordova, CA 95814

Date Analyzed:

Jun 21, 1999 11216JUN99

Project Name:

Caltrans Rte. 12

Matrix:

Project #:

Soil

782983

Dilution:

1:

				Reporting	
Name	LAB ID	Client ID	Concentration	Limit	Units
Lead (Pb)	11216-011A	12B4 - 0.15	29	1.0	mg/kg
Lead (Pb)	11216-012A	12B5 - 0.15	12	1.0	mg/kg
Lead (Pb)	11216-013A	12B5 - 0.3	11	1.0	mg/kg
Lead (Pb)	11216-014A	12B5 - 0.6	7.4	1.0	mg/kg
Lead (Pb)	11216-015A	12B5 - 0.9	6.5	1.0	mg/kg
Lead (Pb)	11216-016A	12B6 - 0.15	3.0	1.0	mg/kg
Lead (Pb)	11216-017A	12B6 - 0.3	4.1	1.0	mg/k <b>g</b>
Lead (Pb)	11216-018A	12B6 - 0.6	5.0	1.0	mg/kg
Lead (Pb)	11216-019A	12B6 - 0.9	5.6	1.0	mg/kg
Lead (Pb)	11216-020A	12B7 - 0.15	6.9	1.0	mg/kg
Lead (Pb)	11216-021A	12B7 - 0.3	3.6	1.0	mg/kg

ppm= parts per million = mg/L = milligram per liter

ND = Not Detected. Compound(s) may be present at concentrations below the detection limit:

E. McKinney, Inorganics Manager

Jun 21, 1999

Date Reported

SPARGER TECHNOLOGY ANALYTICAL LABORATORY, INC. IS CERTIFIED BY THE STATE OF CALIFORNIA DEPARTMENT OF HEALTH SERVICES AS A HAZARDOUS WASTE TESTING LABORATORY (Certification No. 1614)



### **EPA Method 6010** Lead

Attention:

Mr. Dave Smith

**IT** Corporation

11315 Sunrise Gold Cir., Ste. A

Rancho Cordova, CA 95814

Date Sampled:

Jun 18, 1999

Date Received: Date Digested:

Jun 18, 1999 Jun 21, 1999

Date Analyzed:

Jun 21, 1999

Invoice #:

11216JUN99

Project #:

782983

Project Name:

Caltrans Rte. 12

Matrix:

Soil

Dilution:

1: 1

				Reporting	
Name	LAB ID	Client ID	Concentration	Limit	Units
Lead (Pb)	11216-022A	12B7 - 0.6	4.1	1.0	mg/kg
Lead (Pb)	11216-023A	12B7 - 0.9	3.6	1.0	mg/kg
Lead (Pb)	11216-024A	12B8 - 0.15	3.2	1.0	mg/kg
Lead (Pb)	11216-025A	12B8 - 0.3	4.8	1.0	mg/kg
Lead (Pb)	11216-026A	12B8 - 0.6	1.4	1.0	mg/kg
Lead (Pb)	11216-027A	12B8 - 0.9	4.8	1.0	mg/kg
Lead (Pb)	11216-028A	12B9 - 0.15	15	1.0	mg/kg
Lead (Pb)	11216-029A	12B9 - 0.3	25	1.0	mg/kg
Lead (Pb)	11216-030A	12B9 - 0.6	30	1.0	mg/kg
Lead (Pb)	11216-031A	12B9 - 0.9	5.5	1.0	mg/kg

ppm= parts per million = mg/L = milligram per liter

ND = Not Detected. Compound(s) may be present at concentrations below the detection limit.

E. McKinney, Inorganics Manager

Jun 21, 1999

Date Reported

SPARGER TECHNOLOGY ANALYTICAL LABORATORY, INC. IS CERTIFIED BY THE STATE OF CALIFORNIA DEPARTMENT OF HEALTH SERVICES AS A HAZARDOUS WASTE TESTING LABORATORY (Certification No. 1614)



#### EPA Method 6010 Lead

Attention:

Mr. Dave Smith

Date Sampled:

Jun 18, 1999

**IT** Corporation

Date Received:

Jun 18, 1999

11315 Sunrise Gold Cir., Ste. A

Date Digested: Jun 21, 1999

Jun 21, 1999

Rancho Cordova, CA 95814

Date Analyzed: Invoice #:

11216JUN99

Project #:

782983

Project Name:

Caltrans Rte. 12

Matrix:

Soil

Dilution:

1: 1

				Reporting			
Name	LAB ID	Client ID	Concentration	Limit	Units		
				•			
Lead (Pb)	11216-032A	12B10 - 0.15	82	1.0	mg/kg		
Lead (Pb)	11216-033A	12B10 - 0.3	47	1.0	mg/kg		
Lead (Pb)	11216-034A	12B10 - 0.6	11	1.0	mg/kg		
Lead (Pb)	11216-035A	12B10 - 0.9	7.4	1.0	mg/kg		
Lead (Pb)	11216-036A	12B11-0.15	16	1.0	mg/kg		
Lead (Pb)	11216-037A	12B11 - 0.3	85	1.0	mg/k		
Lead (Pb)	11216-038A	12B11 - 0.6	9.5	1.0	mg/k		
Lead (Pb)	11216-039A	. 12B11 - 0.9	8.0	1.0	mg/k		
Lead (Pb)	11216-040A	12B12 - 0.15	11	1.0	mg/k		
Lead (Pb)	11216-041A	12B12 - 0.3	9.5	1.0	mg/k		

ppm= parts per million = mg/L = milligram per liter

ND = Not Detected. Compound(s) may be present at concentrations below the detection limit.

E. McKinney, Inorganics Manager

Jun 21, 1999

Date Reported

SPARGER TECHNOLOGY ANALYTICAL LABORATORY, INC. IS CERTIFIED BY THE STATE OF CALIFORNIA DEPARTMENT OF HEALTH SERVICES AS A HAZARDOUS WASTE TESTING LABORATORY (Certification No. 1614)



### EPA Method 6010 Lead

Attention:

Mr. Dave Smith

IT Corporation

11315 Sunrise Gold Cir., Ste. A

Rancho Cordova, CA 95814

Da

Date Sampled:

Jun 18, 1999

Date Received: J Date Digested: J

Jun 18, 1999 Jun 21, 1999

Date Analyzed:

Jun 21, 1999

Invoice #:

11216JUN99

Project #:

782983

Project Name:

Caltrans Rte. 12

Matrix:

Soil

Dilution:

1: 1

				Reporting	
Name	LAB ID	Client ID	Concentration	Limit	Units
Lead (Pb)	11216-042A	12B12 - 0.6	8.1	1.0	mg/kg
Lead (Pb)	11216-043A	12B12 - 0.9	6.3	1.0	mg/k <b>g</b>
Lead (Pb)	11216-044A	12B13 - 0.15	66	1.0	mg/kg
Lead (Pb)	11216-045A	12B13 - 0.3	62	1.0	mg/kg
Lead (Pb)	11216-046A	12B13 - 0.6	12	1.0	mg/kg
Lead (Pb)	11216-047A	12B13 - 0.9	7.4	1.0	mg/kg
Lead (Pb)	11216-048A	12B14 - 0.15	88	1.0	mg/kg
Lead (Pb)	11216-049A	12B14 - 0.3	22	1.0	mg/kg
Lead (Pb)	11216-050A	12B14 - 0.6	7.8	1.0	mg/kg
Lead (Pb)	11216-051A	12B14 - 0.9	6.8	1.0	mg/kg

ppm= parts per million = mg/L = milligram per liter

ND = Not Detected. Compound(s) may be present at concentrations below the detection limit.

E. McKinney, Inorganics Manager

Jun 21, 1999

Date Reported

SPARGER TECHNOLOGY ANALYTICAL LABORATORY, INC. IS CERTIFIED BY THE STATE OF CALIFORNIA DEPARTMENT OF HEALTH SERVICES AS A HAZARDOUS WASTE TESTING LABORATORY (Certification No. 1614)



### **EPA Method 6010** Lead

Attention:

Mr. Dave Smith

**IT Corporation** 

11315 Sunrise Gold Cir., Ste. A

Rancho Cordova, CA 95814

Date Sampled:

Jun 18, 1999 Jun 18, 1999

Date Received: Date Digested:

Jun 21, 1999

Date Analyzed:

Jun 21, 1999

Invoice #:

11216JUN99

Project #:

782983

Project Name:

Caltrans Rte. 12

Matrix:

Soil

Dilution:

1:

				Reporting	
Name	LAB ID	Client ID	Concentration	Limit	Units
Lead (Pb)	11216-052A	12B15 - 0.15	26	1.0	mg/k <b>g</b>
Lead (Pb)	11216-053A	12B15 - 0.3	71	1.0	mg/kg
Lead (Pb)	11216-054A	12B15 - 0.6	16	1.0	mg/kg
Lead (Pb)	11216-055A	12B15 - 0.9	6.8	1.0	mg/kg
Lead (Pb)	11216-056A	12B16 - 0.15	20	1.0	mg/kg
Lead (Pb)	11216-057A	12B16 - 0.3	62	1.0	mg/kg
Lead (Pb)	11216-058A	12B16 - 0.6	24	1.0	mg/kg
Lead (Pb)	11216-059A	12B16 - 0.9	5.5	1.0	mg/kg
Lead (Pb)	11216-060A	12B17 - 0.15	47	1.0	mg/kg
Lead (Pb)	11216-061A	12B17 - 0.3	34	1.0	mg/kg
• •			•		

ppm= parts per million = mg/L = milligram per liter

ND = Not Detected. Compound(s) may be present at concentrations below the detection limit.

E. McKinney, Inorganics Manager

Jun 21, 1999

Date Reported

SPARGER TECHNOLOGY ANALYTICAL LABORATORY, INC. IS CERTIFIED BY THE STATE OF CALIFORNIA DEPARTMENT OF HEALTH SERVICES AS A HAZARDOUS WASTE TESTING LABORATORY (Certification No. 1614)



#### **EPA Method 6010** Lead

Attention:

Mr. Dave Smith

**IT** Corporation

11315 Sunrise Gold Cir., Ste. A

Rancho Cordova, CA 95814

Date Sampled:

Jun 18, 1999

Date Received:

Jun 18, 1999

Date Digested: Date Analyzed: Jun 21, 1999 Jun 21, 1999

Invoice #:

11216JUN99

Project #:

782983 -

Project Name:

Caltrans Rte. 12

Matrix:

Soil

Dilution:

1: 1

			,	Reporting			
Name	LAB ID	Client ID	Concentration	Limit	Units		
		-					
Lead (Pb)	11216-062A	12B17 - 0.6	140	1.0	mg/kg		
Lead (Pb)	11216-063A	12B17 - 0.9	19	1.0	mg/ko		
Lead (Pb)	11216-064A	12B18 - 0.15	112	1.0	mg/k		
Lead (Pb)	11216-065A	12B18 - 0.3	63	1.0	mg/kg		
Lead (Pb)	11216-066A	12B18 - 0.6	89	1.0	mg/kg		
Lead (Pb)	11216-067A	12B18 - 0.9	12	1.0	mg/k		
Lead (Pb)	11216-068A	12B19 - 0.15	26	1.0	mg/k		
Lead (Pb)	11216-069A	12B19 - 0.3	30	1.0	mg/k		
Lead (Pb)	11216-070A	12B19 - 0.6	197	1.0	mg/k		
Lead (Pb)	11216-071A	12B19 - 0.9	27	1.0	mg/k		

ppm= parts per million = mg/L = milligram per liter

ND = Not Detected. Compound(s) may be present at concentrations below the detection limit.

E. McKinney, Inorganics Manager

Jun 21, 1999

Date Reported

SPARGER TECHNOLOGY ANALYTICAL LABORATORY, INC. IS CERTIFIED BY THE STATE OF CALIFORNIA DEPARTMENT OF HEALTH SERVICES AS A HAZARDOUS WASTE TESTING LABORATORY (Certification No. 1614)



### **EPA Method 6010** Lead

Attention:

Mr. Dave Smith

**IT** Corporation

11315 Sunrise Gold Cir., Ste. A

Rancho Cordova, CA 95814

Date Sampled:

Jun 18, 1999

Date Received:

Jun 18, 1999 Jun 21, 1999

Date Digested: Date Analyzed:

Jun 21, 1999

Invoice #:

11216JUN99

Project #:

782983

Project Name:

Caltrans Rte. 12

Matrix:

Soil

Dilution:

				Reporting	
Name	LAB ID	Client ID	Concentration	Limit	Units
Lead (Pb)	11216-072A	12B20 - 0.15	31	1.0	mg/k <b>g</b>
Lead (Pb)	11216-073A	12B20 - 0.3	8.6	1.0	mg/kg
Lead (Pb)	11216-074A	12B20 - 0.6	6.7	1.0	mg/k <b>g</b>
Lead (Pb)	11216-075A	12B20 - 0.9	5.9	1.0	mg/kg
Lead (Pb)	11216-076A	12B21 - 0.15	150	1.0	mg/kg
Lead (Pb)	11216-077A	12B21 - 0.3	97	1.0	mg/kg
Lead (Pb)	11216-078A	12B21 - 0.6	11	1.0	mg/kg
Lead (Pb)	11216-079A	. 12B21 - 0.9	7.1	1.0	mg/kg
Lead (Pb)	11216-080A	12B22 - 0.15	52	1.0	mg/kg
Lead (Pb)	11216-081A	12B22 - 0.3	32	1.0	mg/kg
` ,					

ppm= parts per million = mg/L = milligram per liter

ND = Not Detected. Compound(s) may be present at concentrations below the detection limit.

E. McKinney, Inorganics Manager

Jun 21, 1999

Date Reported

SPARGER TECHNOLOGY ANALYTICAL LABORATORY, INC. IS CERTIFIED BY THE STATE OF CALIFORNIA DEPARTMENT OF HEALTH SERVICES AS A HAZARDOUS WASTE TESTING LABORATORY (Certification No. 1614)



## EPA Method 6010 Lead

Attention:

Mr. Dave Smith

IT Corporation

11315 Sunrise Gold Cir., Ste. A

Rancho Cordova, CA 95814

Dat

Date Sampled:

Jun 18, 1999

Date Received: Jun 18, 1999

Date Digested: Date Analyzed: Jun 21, 1999 Jun 21, 1999

Invoice #:

11216JUN99

Project #:

782983

Project Name:

Caltrans Rte. 12

Matrix:

Soil

Dilution:

1:

			Reporting	
LAB ID	Client ID	Concentration	Limit	Units
11216-082A	12B22 - 0.6	13	1.0	mg/k <b>g</b>
11216-083A	12B22 - 0.9	7.6	1.0	mg/kg
11216-084A	12B23 - 0.15	24	1.0	mg/kg
11216-085A	12B23 - 0.3	14	1.0	mg/kg
11216-086A	12B23 - 0.6	13	1.0	mg/kg
11216-087A	12B23 - 0.9	9.4	1.0	mg/kg
11216-088A	12B24 - 0.15	54	1.0	mg/kg
11216-089A	12B24 - 0.3	16	1.0	mg/kg
11216-090A	12B24 - 0.6	10	1.0	mg/kg
11216-091A	12B24 - 0.9	22	1.0	mg/kg
	11216-082A 11216-083A 11216-084A 11216-085A 11216-086A 11216-087A 11216-088A 11216-089A 11216-090A	11216-082A 12B22 - 0.6 11216-083A 12B22 - 0.9 11216-084A 12B23 - 0.15 11216-085A 12B23 - 0.3 11216-086A 12B23 - 0.6 11216-087A 12B23 - 0.9 11216-088A 12B24 - 0.15 11216-089A 12B24 - 0.3 11216-090A 12B24 - 0.6	11216-082A 12B22 - 0.6 13 11216-083A 12B22 - 0.9 7.6 11216-084A 12B23 - 0.15 24 11216-085A 12B23 - 0.3 14 11216-086A 12B23 - 0.6 13 11216-087A 12B23 - 0.9 9.4 11216-088A 12B24 - 0.15 54 11216-089A 12B24 - 0.3 16 11216-090A 12B24 - 0.6 10	LAB ID         Client ID         Concentration         Limit           11216-082A         12B22 - 0.6         13         1.0           11216-083A         12B22 - 0.9         7.6         1.0           11216-084A         12B23 - 0.15         24         1.0           11216-085A         12B23 - 0.3         14         1.0           11216-086A         12B23 - 0.6         13         1.0           11216-087A         12B23 - 0.9         9.4         1.0           11216-088A         12B24 - 0.15         54         1.0           11216-089A         12B24 - 0.3         16         1.0           11216-090A         12B24 - 0.6         10         1.0

ppm= parts per million = mg/L = milligram per liter

ND = Not Detected. Compound(s) may be present at concentrations below the detection limit.

E. McKinney, Inorganics Manager

Jun 21, 1999

Date Reported

SPARGER TECHNOLOGY ANALYTICAL LABORATORY, INC. IS CERTIFIED BY THE STATE OF CALIFORNIA
DEPARTMENT OF HEALTH SERVICES AS A HAZARDOUS WASTE TESTING LABORATORY
(Certification No. 1614)

6010081.xls



## **EPA Method 6010** Lead

Attention:

Mr. Dave Smith

Date Sampled:

Jun 18, 1999

**IT** Corporation

Date Received:

Jun 18, 1999

11315 Sunrise Gold Cir., Ste. A

Date Digested:

Jun 21, 1999

Rancho Cordova, CA 95814

Date Analyzed:

Jun 21, 1999

Invoice #:

11216JUN99

Project #:

782983

Project Name:

Caltrans Rte. 12

Matrix:

Soil

Dilution:

1:

				Reporting	
Name	LAB ID	Client ID	Concentration	Limit	Units
Lead (Pb)	11216-092A	12B25 - 0.15	36	1.0	mg/kg
Lead (Pb)	11216-093A	12B25 - 0.3	37	1.0	mg/kg
Lead (Pb)	11216-094A	12B25 - 0.6	51	1.0	mg/kg
Lead (Pb)	11216-095A	12B25 - 0.9	15	1.0	mg/kg
Lead (Pb)	11216-096A	12B26 - 0.15	8.4	1.0	mg/kg
Lead (Pb)	11216-097A	12B26 - 0.3	5.6	1.0	mg/kg
Lead (Pb)	11216-098A	12B26 - 0.6	105	1.0	mg/kg
Lead (Pb)	11216-099A	12B26 - 0.9	27	1.0	mg/kg
Lead (Pb)	11216-100A	12B27 - 0.15	81	1.0	mg/kg
Lead (Pb)	11216-101A	12B27 - 0.3	16	1.0	mg/kg

ppm= parts per million = mg/L = milligram per liter

ND = Not Detected. Compound(s) may be present at concentrations below the detection limit.

E. McKinney, Inorganics Manager

Jun 21, 1999

Date Reported



## **EPA Method 6010** Lead

Attention:

Mr. Dave Smith

**IT Corporation** 

11315 Sunrise Gold Cir., Ste. A

Rancho Cordova, CA 95814

Date Sampled:

Jun 18, 1999

Date Received:

Jun 18, 1999

Date Digested:

Jun 21, 1999

Date Analyzed:

Jun 21, 1999

Invoice #:

11216JUN99

Project #:

782983

Project Name:

Caltrans Rte. 12

Matrix:

Soil

Dilution:

1: 1

	<u> </u>			Reporting	
Name	LAB ID	Client ID	Concentration	Limit	Units
Lead (Pb)	11216-102A	12B27 <b>-</b> 0.6	21	1.0	mg/kg
Lead (Pb)	11216-103A	12B27 - 0.9	25	1.0	mg/kg
Lead (Pb)	11216-104A	12B28 - 0.15	30	1.0	mg/kg
Lead (Pb)	11216-105A	12B28 - 0.3	20	1.0	mg/k
Lead (Pb)	11216-106A	12B28 - 0.6	30	1.0	mg/k
Lead (Pb)	11216-107A	12B28 - 0.9	11	1.0	mg/k

ppm= parts per million = mg/L = milligram per liter

ND = Not Detected. Compound(s) may be present at concentrations below the detection limit.

E. McKinney, Inorganics Manager

Jun 21, 1999

Date Reported

SPARGER TECHNOLOGY ANALYTICAL LABORATORY, INC. IS CERTIFIED BY THE STATE OF CALIFORNIA DEPARTMENT OF HEALTH SERVICES AS A HAZARDOUS WASTE TESTING LABORATORY (Certification No. 1614)

60100101.xls

			ne:					<u> </u>	,	TAT	Standard Rush Services (72h/48hr) 24hr / 12hr) Holiday/Weekend Rush	X					0.7		+	- 3	<b>}</b>		Time:
	STAL Invoice Number:		Sampler's Name:	AX		WEI(SILC)	TCLP		Total		CAM-5 Metals (Cd, Cr, Pb, Ni, Zn) Lead 6010	1.									<b>→</b>		
	Nur		Sam			\$	.				slateM TI-MAC											Ì	
	oice			,	ae ,	~			-		Hd 5406		X									.	
	<u>2</u>	REQUEST			Some	ð					s. 108		_					11	$\bot$		Bocoived by:	5	1
,	ΤAL	입	ê	1-29-1	None	Š	١.				)rganic Lead	1_		<u> </u>		. :	.		$\coprod$	_	_ ;		Date:
COSIODI NECOND	ഗ			_ ^^	8	0					Jon-Polar O & G/TRPH (418.1)	1		_		_			$\bot\!\!\!\!\!\bot$		16		
)		ANALYSIS	_	0.6, om 14	All (	Š					Olal & Grease (5520)	1		<u> </u>		_	- 1		4	_	4	ļ	
ב ה		MA	Ç	Z C	4 (						SSS/0728/825 A9	1_		_					$\bot$		_		
5 ~		^	ر. ا	(		ပွ			TCLP		PA 624/8240/524.2/8260		_			-			$\perp \!\!\! \perp$		4		1/8/99 Time: 18; 35 Date:
ת ק	00 کے 10 کے		Ö	omplysis		ļ			10		EPA 608/8080 (PCB'S)			ļ					$\downarrow \downarrow$				Time:
ָר אַ מי	ر ا			–===							802/202/(sebticites9) 0808/808 Aq							$\perp$	$\perp$		4	}	
ָרָ פּיי	ľ		_	<b>~</b>			LC.				0208/S09 Aq											ŀ	
	Š O			تي تي	4	o.	Sample Condition				1208/403/2.203/0108/103 Aq	1									_ ;	Helinquisned by:	
7 Z Z	Z 		KS:	3.		le le le	S		.		PHdiesel/TPHmotor oil/kerosene(8015)	1										sue	
NAL.	י כי		REMARKS:	53		Cooler Temp.	ble				TEX/TPHgas (602/8020/8015)/MTBE	<b>■</b>											e.
Γ,	C.O.C.	1	REN	<b>ڪ</b> ِ		ြိ	San	ЬH			TEX (602/8020)503.1	8										e L	Date:
			<b>5</b>	··		1					ther:												(
		0	4							Matrix	ĮĮ.	∀											3
i	8947	350	23	4						Ma	lio	$\mathbb{K}$	_	+				<u> </u>		_	<b>→</b>		00
•	32-86 32-09	23	- 1	40							/ater	۸											e: /
i i	Phone: (916) 362-8947 EAX: (916) 362-0947	858	858	, ,		٤			tive		ther:	0										4	Time:
7	e: (9	$ \infty $		2					Preservative	Used	əuo	NX		-	<del></del>			4			>	The state of the s	
) 3	Phon FA	216	916	ر <u>.</u> س	5/				Pres		сілниозусе	ΗУ	₫-	+-	+	<u> </u>			$\mathbb{H}$		<del>&gt;</del>	1	86%
3				:is 6	856	#	#	:			ther: Plastic 2plock bag	O y	7 -	-			-	+			又		1.5
~		Phone:	FAX:	dd res	9	t/Job	O.	CA		ē	50 mL Plastic	55										9	6
7		-		& & .	× U	rojec		7		Container	L amber bottle	4										Recei	Date:
<u>ن</u>				y Name	9	Project/Job#:		Š		Ş	ass Sleeve	8											
<b>!</b>		1		Billing Name & Address:	14/		•	1			AOV Jm (	) <del> </del>							$\prod$				1
OGr	70607	130051	5m+4	Billing	erdo va,	24.	•	@ H~7 113		ina		ıme	0.0	2.60								1	5:9
ECHNOLOGY, INC.	ory C	#112 Sacialiente, CA SOCE		رغز	ゝ	Caltras				Sampling		ate	10/10		+		+		+		<b>&gt;</b> /	H	J.oui.L
5	Analytical Laboratory	Corp	Dare	4	Runcho	12	į	7	$\vdash$				<u>~</u>		0	- 12	, ~	, L	0	1	4		1
*1	oqu	o i -	13	18	3	1		421				의	5.5	0.0	4.0	0.6	6			0.15	5.9		\$P
<b>5</b>	/ Lé	2,#112	. ::	, <u> </u>	Ra		; (	ستد ≝			9	SAMPLEID	-	1 3	`   <i>`</i>		. [ '			)	1	熠	[×
SFARGER	ica	Susu rite circle, Company:	ınage	dres	-	me:		Call				SAI	2 2	1971				7	45,42	283	1283	isher /	
7	1 × 1	Susu Fire Cir.	Project Manager:	Report Address		Project Name:	ָר װְּיִינְיִים רָּיִים רָּיִים רָּיִים רָּיִים רָּיִים רָּיִים רָּיִים רָּיִים רְּיִים רְּיִים רְּיִים רְּיִים	그 5	_			+	<u> </u>	•		· ·		7		+-	10, 17	Relinquished	1 25.50
च						· ·		<u>~</u>	ı			엙	. 1	$\alpha \mid \alpha$	ກ   ≂	ר על	S (c	9 4	- ab	حسّا،	10		1 7

	J	1	· · · · · · · · · · · · · · · · · · ·			<u> </u>			,		лонаауууу басаа насп		,:	, to		子子	انگساند. ان <sup>سا</sup> ندو		E.	J				1
	<u>.</u>		/	<b>—</b>						₩.		X	F.	1.0					7/ ~ 50		5			
9 9				Ş	-					7					K	7		37	. V	1	_			
<u></u>	j		ıme:	$\hookrightarrow$	<b>⇒</b>		1	1	Т						+								lime:	
<b>P</b>		ŀ	s Na				ے ا		_		9/09 pee-		_			$\pm$	$\pm$			_	>		_	
	nbe		pler			T(S	길		] [2]						+						:			
	Ž		Sam			×					slsteM Tr-MAC							-						
	Sice				Te		_										ŀ							İ
	2	EST		5	Son	Ò	İ		ĺ		IOF											by:		
	M		$\sim$	٠, و	-						bsed oinsgrO											eived	٠.;	
			Ö	, 1	Š	Ò					Von-Polar O & G/TRPH (418.1)											Rece	 Date	
		YSI	5	34. 84.		7					Total Oil & Grease (5520)					-								1
		¥	28	25	⋖	ō					525/0728/825 Aq		٠,											
		⋖				۲	2		<u>_</u>		SA4/8240/524.2/8260												i.	S
24			3	,					12		(2'839) 0808/809 A9					-							ij	먙
92	$\exists$		<b>X</b>								802\202\(eeticiteeq) 0808\809 Aq=		·											몽
7					.		5				0S08\S09 Aq=												-	
<u>.</u>	٦		2		-	ء	je je				1S08\402\S.S03\0108\100 A93											<u>b</u> ;		M
<u>ک</u>	ک		3KS:			<u>ل</u> م	<u> </u>				TPHdiesel/TPHmotor oil/kerosene(8015)											shed		R
0.0	ر او		MAF			ole,					38TM/(2108/0208/209) segH9TX3TE					Ш						indni	je.	뮕
<u>ં ડ</u>	Pac		끮		<u></u>	ع	Sals	핑	L		FTEX (602/8020)503.1											Re	Dat	뎞
											Other:				$\perp$									PLEASE READ REVERSE SIDE FOR TERMS AND CONDITIONS
			į			,	`			latrix						_		_					3	SE
8947	0947					2	۱ ` ه			Σ		<u> </u>	_	_	+	#				_	2	1	5	뗂
362-	362					ێ	_		Ļ			├			$\perp$	_							ne:	뿐
(916)	(916)					6	J		ative	þ						$\perp$				_			<u> </u> =	EAD
ione:	FAX:					O	0		ser	Use		レノヽ	-	-	+		+		$\dashv$	_	<u></u> ≥	To	3	III IIII
₫.						7			P.				_		+		1	-			_	X	2	K
		one:	FAX:	ess:		lob#:	#	}			7 1 0		_		$\mp$	+	$\top$			7	7	$-\alpha g$	0	<del>┝</del> 록
		듄		, Add		ject/.	ш	•		ainer		├			_						$\dashv$		ate:	
				me 8		Pr				ont		1			+	$\perp$				_	$\dashv$	<u> </u>	ä	4
		(		g Na						٥	<del></del>	1			+	+		_		-	$\dashv$			
,	327	,	7						_	1		$\vdash$	_		+							>	35	,
	A 958	(	3							ing			ļ									[	8	
>	nto, C									amp		-			+	+	$\vdash$					M		,
tor	amer	\								Ö	Ped [646	1/9			+			-	_	_	7		į	
ora	Sacr	Ų.	<u>`</u>									9	6.	15	寸:	9.	9.	9	ů	9.6	2.9	T	-	
ab	¥112										ш Ш	0-1	10,			1	1	0	0	1	ï			1
al	rcle, ≢		ager:	ess:		ë.	ition:				Ā.W.	63	63	BY	+	+	1	\$5.	تز	Ş	35	T 1	18	1
ytic	ite Cii	Company:	Man	Addr		Project Name:	600				3	12	21	12	1264	1264	4	11	12.6	165	126	Relinquished	ه	1
	15.7	(1)	ا ب		- 1	ನ	to	i	<b></b>			+-	1	$\vdash$				<del></del>		-		ğ	l	·I
Inal	350 F	om	rojec	epor		roje	roje Poje	}			O Z	-	2	က	4	5	9	7.	ω	6	5	iei Fi	Date:	
	Analytical Laboratory Phone: (916) 362-8947   C.O.C. No. 27624	ر. O.C. No. Phone: (916) 362-8947 (916) 362-0947 Page کار دار 949 کار دار 949 کار دار 949 کار	Phone: (916) 362-8947	Phone: (916) 362-8947 C.O.C. No. 27624  FAX: (916) 362-0947 Page 2 of [2]  Phone:  REMARKS: PROMARKS: Property Analysis Page 2 of [2]  FAX: (916) 362-8947 Page 2 of [2]  ANALYSIS PAGE 3 of [2]  ANAL	Phone: (916) 362-8947 C.O.C. No. 27624 STAL Invoice Number:  Phone:  Phone:  Phone:  Page $\mathcal{L}$ of $\mathcal{L}$ STAL Invoice Number:  ANALYSIS REQUEST  REMARKS: $\mathcal{L}$ Sampler's Naming Name & Address:  (264-6.3 Sampler's Naming Name & Address:	Phone: (916) 362-8947 C.O.C. No. $27624$ FAX: (916) 362-0947 Page $\mathcal{L}$ of $\mathcal{L}$ STAL Invoice Analysis request Remarks: No Sample (264 - 0.3 (1264 - 0.4 (1264	Phone: (916) 362-8947	Phone: (916) 362-8947 C.O.C. No. 27624  FAX: (916) 362-8947 Page $\mathcal{L}$ of 12  Phone:	Phone: (916) 362-8947    Page $\lambda$ of 1    Thing Name & Address:  Phone: (916) 362-8947    Page $\lambda$ of 1    ANALYSIS REQUEST  REMARKS: $h_0$ Swangle 12 $\theta$ 4 - $\theta$ . $\theta$ Remarks: $h_0$ Swangle 20	Phone: (916) 362-8947   FAX: (916) 362-8947   Phone:	Phone: (916) 362-8947  Page 2. of 12  ANALYSIS REQUEST  ANALYSIS REQUEST  ANALYSIS REQUEST  ANALYSIS REQUEST  ANALYSIS REQUEST  REMARKS: Project/Job#: 12 84 - 0.8    12 84 - 0.6   0.6	Phone: (916) 362-8947  TAX: (9	Phone: (916) 362-26947   C.O.C. No. 27624	TAX (916) 362-8947  Phone: (916) 362-8947  P	CO.C. No. 27624  Tax. (916) 362-8947  Tax. (916) 3	Phone: (916) 982-8947   C.O.C. No. 27624	Phone: (316) 5002-6947   Phone: (316) 5002-6	Phone: (316) 382-36947   C.O.C. No. 27624	Phone (316) 382-8847   C.O.C. No. 27624	### CO.C. No. 27624    Phone (316) 966-06947   C.O.C. No. 27624	### STAL Invoice Number:    Prome: (316) 562-60-647   FAX: (316) 562-60-647	Phone (1616) 3622-6647  Phone (1616) 3622-6647  Phone (1616) 3622-6647  Phone (1616) 3622-6647  Phone (1616) 3622-6647  Phone (1616) 3622-6647  Phone (1616) 3622-6647  Phone (1616) 3622-6647  Phone (1616) 3622-6647  Phone (1616) 3622-6647  Phone (1616) 3622-6647  Phone (1616) 3622-6647  Phone (1616) 3622-6647  Phone & Address:  Phone (1616) 3622-6647  Phone (1616)	Pronse, (1916) 3022-0947	### Propertion   P

	REMARKS: Sampler's Name:	All None Some         Some           Cooler Temp.         °C         OK         OK         WET(STLC)           Sample Condition         TCLP         TCLP	pH TCLP Total		Air.  2) Ciher:  3) TEX/TPHgas (602/8020/8015)/MTBE TPHdiesel/TPHmotor oil/kerosene(8015) EPA 601/8010/502.2/504/8021 EPA 608/8080 (Pesticides)/505/508 EPA 608/8080 (PCB'S) EPA								Relinquished by:	
ier = criNULOG'r, INC. al Laboratory	Company:  Project Manager:  Report Address:  Billing Name & Address:	Project Name: Project/Job#: 78		Sampling Container Used	AAMPINOS/INCE	X X X X X X X X X X X X X X X X X X X	1786 0.3	1266 0	-0-	1787-0.3	لحدل	9, 1288 - 0.15 10 1789 5 3 V	nayiished by:	70.00

					<u></u>		-			TAT	<u> </u>	Rush Services (72hr / <b>48hr)</b> 24hr / 12hr	X		8						7	7		
- 8				ö	\					•		Standard		A		3					3			:e:
			l	Sampler's Name:	CT	_ 6								Ĺ	- E	31	10	- A-4	S	7				Time:
	· ;		Ì	er's Î	X	VET(STLC)		TCLP		lotal —	1	Q109 pea-	1	_						-	-	_		
. İ	2			mple	A.	VET		$\forall$		<u> </u>	1	CAM-5 Metals (Cd, Cr, Pb, Ni, Zn)	╂					-			:	_		
<i></i>	2	STAL INVOICE INUMBER		Sa					1		1	zlateM 71-MAC	_	<u> </u>					_		_	4		
1		9	닐	ž,		Some					1	Ha stup		ļ		X		1						
	<u>2</u>		REQUEST	1289-63	•	$\vdash -$					1	IOF	₩	-				_					Received by:	
CUSTODY RECORD	F U	<u>₹</u>	띫	28	•	None SX				_	1	bead oinsgrÖ	⊢								_		ceiv	Date:
OF.	·					ž —	<u>'</u>	_	4	_	1	Von-Polar O & G/TRPH (418.1)	<del> </del>	<u> </u>				$\perp$		_	-	_	<u> </u>	ä
֝֟֝֝֟֝֝֟֝֝֟֝֟֝ <del>֚</del>		ı	ANALYSIS	K)		₹ Ş					1	Total Oil & Grease (5520)	1-	_							$\perp$	4		
五		1	۸	and 45,8							1	EPA 625/8270/525	<b>!</b> -	_					_	1	1	_		
_ <b>`</b>	۵			, y			ပို		1	<u>-</u>	1	EPA 624/8240/524.2/8260	╂				_			<u>;</u>		4		Time:
2	Ž		Ì	કુ	<u>.</u>				_  i	<u>-</u>	╀	EPA 608/8080 (PCB'S)	┢						_		1	_		į
S	25	_	l		1						┇	808\808\\505\cdot \cdot						-	_		1	_		
5 °	.V.	5	ı	I	-	·		io			1	0208/8020	┼	<u> </u>			_		4	_	4			
는 .	ੇ (	٦		الهاور	11016 (11		Ġ.	Sample Condition			1	FS08/403/2.203/0108/109 Aq	1					_	-				Relinquished by:	
2	7.0.C.7 2.0.C.7 2.0.C.7	1		REMARKS:	2		Cooler Temp.	ပ္တို			(	TPHdiesel/TPHmotor oil/kerosene(8015		_									ishe	
4	Ö	ge	l	MA	=		oler	m m	.		1	STEX/TPHgas (602/8020/8015)/MTBE	<del>-</del>	_									linqu	<u>e</u>
, <b>7</b>	<u>ن</u> د	Page		"			ပိ	Sa	<u> </u>		$\downarrow$	STEX (602/8020)503.1	_									4	<u> </u>	Date:
								~ ^		J	⇂	Other:	╌	ļ				$\dashv$	_			_		
r 1)								~~ ~~		Matrix			٠.	_								$\dashv$		18:31
. ]	8947	0947					$\mathcal{D}\!\!/$	. پ سې و	┨	. ≥	-	lioS	<u> </u>	_						_		_		8/
rii t	362-	362					7	40	L	-	ļ.	Vater	╄	ļ				_	-	$\perp$			. 1	Time:
. !	Phone: (916) 362-8947	FAX: (916) 362-0947					707E	•		Preservative Used	<u>.</u>	Other:	┺								_   -		1	
	one:	Ä					4	~		servat Used		None	+	_		-	-					>	A	S.
1	£.	1					•		L	<u>r</u>	1	нсі/ниозусе	₩	<u> </u>				_	_				#	
		Ì	Phone:	FAX: ress:		#4c		P.O.#:				2429 2)450) O :19475	Y	1-				_	_			Ż		(O)
			۔	Addin		Project/Job#		<u>v.</u>		ner	2	oitssI9 Jm 089	╄	-					_			_	8	فِ ا
				<u>ھ</u>		P.				Container		L amber bottle	-	ļ.,	ļ							_	Reodi	Date:
7		١	0	Nau						ŏ	۲	Srass Sleeve	╄		ļ						_	_		10
1	!	<u>,</u>	ζ	FAX: Billing Name & Address:					L		1	AOV Jm 04											,	5
59		9582	(	ه ) الق						و	2	e E				4.15							<b>-</b> [	0
7	;	ζ,								Sampling			╂		ļ	7				-	_			_
N	ory	nentc	l							Sar	0ar	(999) Date		<u>}</u> -	<u> </u>				_		_	<b>&gt;</b>	H	
CHNULOGY, INC.	rati	acrar	7	_					-				+		2		<u> </u>	a:	<u>\</u>		9			//
_ <b>Ik</b>	abo	12 S	-	<u>ー</u>								<u></u>		0		6.0	9.0	Ď	0.	0.3	0	6.0-	W	144
្រាំ	1 L	e, #1		S:	į			:E				A MARCO	(2) (1)	1	1	١,	100	5	0			10		
35.	tica	Circ	<u>.</u>	anag		au a		ocatic				A C	2 8.00	288	286	189	2 89	2 89	7.0-0182	-0197	28100	2810	shec )	
orARGE	Analytical Laboratory	3050 Fite Circle, #112 Sacramento, CA 95827	Company:	Project Manager: Report Address:		Project Name		Project Location:	-				<del> </del>	1	1	-	_	7	<u> </u>			-	Relinquished by	<u>ا</u>
, <u>,</u>	5	02	Š	joj Be	<u>.</u>	, ic	?	Proj					-	2	က်	4	5	9	7	8	9	우	Rel	Date:

				~~								TAT	Standard Aush Services (72hr (48m) 24hr / 12hr) Holiday/Weekend Rush	A					8	7			<u> </u>			
		nber:		Sampler's Name:	`	K/X	WET(STLC)		TCLP		Total		An-5 Metals (Cd, Cr, Pb, Ni, Zn)	<u> </u>	-								>		Time:	
. j	7	STAL Invoice Number		Samp			WE						slafetals	╁								`				
		VOICE	آۃ			Some	Š																	:,		
		듸	REQUEST			⊢							Organic Lead	╀					_					Received by:		ľ
5	· i	ST	E			None	엉						100-Polar O & G/TRPH (418.1)	-							-			eceiv	Date:	
Ö			SIS			-							Oisl Oil & Grease (5520)	╁	-				Z.	$\dashv$				<u>«</u>		•
HAIN OF CUSTODY RECORD			ANALYSIS			₹	S						3S3\0\\S8\8S8 A93	+												
<u></u>			F					ပွ			ď.		PA 624/8240/524.2/8260	3											;	٤
5	(627										TCLP		(PCB'S)	3							$\top$				Time:	CACH DEAD DEVENOE GIDE FOR TERMS AND CONDITIONS
ISI	3	7											802/202\(eebicitee9) 0808\808 Aq	3					•							
7	7								٦				0S08/S09 A93	3							·					<u>ن</u> ا
OF	Š	ō						a	Sample Condition				1208/403\S.203\0108\109 A93											l by:		3
Z	<u>ک</u> ا	۸		REMARKS:		İ		Cooler Temp.	S				PHdiesel/TPHmotor oil/kerosene(8015)											Relinquished by:		
₹	<u> </u>	- 11		MA				oler	mpk				3TEX/TPHgas (602/8020/8015)/MTBE	+										lingu	le:	ŀ
	<u>، د</u>	Page		뿐				ပို	Sa	핑			TEX (602/8020)503.1	+	_									Re	Date:	۱:
.  Î												×	)ther:	+						_				-		
,	_						0	$\sim$				Matrix	/Ir	1	_					$\dashv$	_				A	ļ
	-8947	-0947		.			(D	2				_	[0]	<u> </u>							7		>		18:31	֓֞֝֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֡֓֓֡֓֜֡֓֓֓֓֡֜֜֡֓֓֡֓֡֡֡֓֡֓֡֡֡֓֡֡֡֡֓
f" \bar{1}	362)	362					<	2_			ø		Other: Vater	┿					_	-				١	Time:	١
	Phone: (916) 362-	FAX: (916) 362-0947					6	781			Preservative	Used	lone	╄									_		<u> </u>	ľ
	hone	ξĂ					7	+			rese	S	ICI\HNO3\ICE	<u> </u>					-				~	4	1/54	
	ш.		*	ان	<b>16</b>		ĺ		-14				Diner: Plastic bass										<u> </u>	by:	18/2	ļ
,			Phone:	FAX:	Billing Name & Address:		Project/Job#:		P.O.#:			ř	50 mL Plastic	₩.					-				Ź	yd by	E ?	ł
					& Ac		rojec					Container	L amber bottle	<u> </u>	_									hyboody	Date: (	
Ş			(	حد	Name		"			•		S	Srass Sleeve	1											1	1
r, II			\$		Illing 1								AOV Jm 0	p -			,								3.5	l
2		5827		$\mid \mathscr{C}$	Ö			•				g													00	
Ž		Š										Sampling	GEI											$\bigwedge$	_	l
  }	ory.	ento,	1									Sarr	(499)	N/9									$\rightarrow$	1	  ⊒:(/  ⊒:(/	
ECHNOLOGY, INC.	Analytical Laboratory	3050 Fite Circle, #112 Sacramento, CA 95827													1~		6	5	~	a.	<u>5</u>	7			1/5/	1
	apo	12 S						٠					<u> </u>		1 .	Ö	٥	~0.1	0.3	9.0.	9.0	6.15	6.3	Q	2	ļ
៍ជ័	" L	e, #1		er:	S				Ë				ш ш ш	1 - 6	. 1	,		13		نہ	,	- 1	813-		) 	1
orARGE	tica	Circ	n S	Project Manager:	Report Address:		ame:		Project Location:					1182	17.011	12811	1021	92)	1821	2 Bil	12812	2 013		Relinquished by:	2	4
14	naly	0 Fite	Company:	ject N	oort A		Project Name:		ject L					1		+	-	-	T	=	-	9,1	1	lingu	<u> </u>	
Ō	A/	305	රි	Pro	Re		P.O.		Pro				9	-	2,	က်	4	5	9	7	∞	6	10	Re	Date:	1

		`,		<u> </u>	.,,			· ·				TAT	Rush Services (72hr /48hr) 24hr / 12hr)	X	:							<i>y</i>	<u></u>			
	ē,			ЭС			.		т	I			Standard		•		2 2 2 C		4 E				4		Time:	2
U		" 		Nan	(	D D D	-	រុ									E & E		7 3			$oldsymbol{\perp}$	4		Ë	
4.		ber:	İ	er's		X		0	TCLP		Total		O O O O O O O O O O O O O O O O O O O	1						$\Box$		-	7			
	:	STAL Invoice Number		Sampler's Name:				⊒  }					AM-5 Metals (Cd, Cr, Pb, Ni, Zn)	+				-			-	+	+			
777		Sice	ŀ				<u> </u>		-		<u> </u>									+		+	1			l
		[트	EST				Some	5					IOF								_		Ė	. y.		
0.3		訠	REQUEST		٠.			<del> </del>					bsed oinsgrO										Beceived hv.		:	
星	27628	လ					None	5				- 411	Von-Polar O & G/TRPH (418.1)											3	Date.	3
၂၀			ANALYSIS				_ \					-	Total Oil & Grease (5520)	-												1
<u> </u>   <u> </u>		١					₹ ∂	5					323/0728/328 A9			,										l
<u>~</u>			₹					ပွ			<u>_</u>		FPA 624/8240/524,2/8260												·a	ا ا
5	2										TCLP		EPA 608/8080 (PCB'S)										1		Time.	
ISI	9/2	7									l		808/808/(sebibitseq) 0808/808 Aq													15
3								ļ	ľ				0208/8020													
片	Š.	٦	1	Çel				.	ditic				FS08/408010/502.2/504/8021										غ			Z
Z		Q		XS:				Femi	Ç				TPHdiesel/TPHmotor oil/kerosene(8015)										hed			100
HA OF	C.O.C.	<u>0</u>		REMARKS:				Cooler Temp.	Sample Condition				38TM\(2108\0208\209) sggH9T\X3TE	3									Belinguished hv.		à	ا از
+	<b>5</b>	Page		R				ပိ	Sar	Hd			FTEX (602/8020)503.1	1									Reli	5	Date.	֓֞֞֝֞֟֓֓֓֓֓֞֟֟
T. 5		$\neg$											Other:										floor			DI FASE DEAD DEVENEE SIDE FOR TEDMS AND CONDITIONS
-												Matrix	ıiA	1_											180	֓֞֝֝֟֜֜֜֝֓֓֓֓֓֓֓֓֟֜֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓
	947	947		İ				83	)		١.	Ř	lio8	X						_		<u> </u>	$\frac{1}{2}$		5	֓֞֝֞֞֜֞֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓
	362-8	362-0						_	-				Water								ŀ	-	╛	1		֝֞֝֞֝֞֝֞֝֓֞֝֟֝֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֝֟֝֓֓֓֝֝֓֓֓֝֝֓֓֝֝
	916)	916)						Ö			ative	~	Other:	<u> </u>											ia H H	5
	Phone: (916) 362-8947	FAX: (916) 362-0947						628t	2		Preservative	Used	enoV	×	_						COLD-12 1047	<u>-}</u>	>	Con.	<i>!</i>	č
1	<sup>°</sup> P	ш.						4	•		Pre		нсі/ниозусЕ	×						_	_	<u> </u>	].	To the	35/21	10
. 1.			ne:	FAX:	:SS:			. <del>.</del>	P.O.#:				2824 5,422/9 :Tento	$\times$	_							7		M. Jan	7	֓֞֜֞֜֞֜֜֞֜֞֜֞֜֜֜֓֓֓֓֓֓֡֜֜֜֡֡֓֓֓֡֜֜֜֡֡
			Phone:	Ţ	Billing Name & Address:			Project/Job#:	2			ner	250 mL Plastic	3						·			\\ <u>{</u>		0 Date: 6	إ
	•				e & /			Proje				Container	L amber bottle	<u> </u>			·						Bo	7	> 2	7
18		١			Nam							ပိ	Srass Sleeve									Ĺ		Î	,	
1,1			9	0	Silling								AOV Jm 01	<u> </u>				٠.							3	,
-CHNCLOGI, INC.	) )	3050 Fite Circle, #112 Sacramento, CA 95827	,	8	ш							ng	e E												2	_
3		O,	`	)								Sampling		<del> </del> —				,		-	+	+	$\frac{1}{2}$	M	].	
Ž	ory	ment	(	ار								Sa	1499, Date	6/13	_				-	-	4	+	» [[	B	Time.	3
5	Analytical Laboratory	sacra,									$\vdash$			_	-	15	~	Ġ	5	प्र	~ .	<u>a</u> .	<u>-</u>  \	U)	8	7
] ~ ' <b>"</b>	abc	112 5											· . <u>Q</u>	2813-0.6	20.0	\$): Q	- 0	ģ	9	5) 0	٥		<u>.</u> ا		6/	1
1, 5	7/1	ile, #1		jer:	SS:		-		ë:				SAMPLE II	~ '	~	14-	4	<u>.</u>	2		5	بار	ڔٳۼٞ	n oy.	8/	٩
25	rtica	∍ Circ	ıny:	/anac	\ddre			lame	ocati.				S.	28	2813	2014	181	92	12 6(	781	1.60	261	2 2 2 2 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3	SIG	9	,†
orABuen	naly	O Fite	Company:	Project Manager:	Report Address:			Project Name:	Project Location:		$\vdash$			<del>                                     </del>	21		9	_	-	11/	7		10,1	neiliiquisiied by.	Date:	110.
ַרָּ בַּן	Ā	305	ပိ	Pro	Re			g Z	Pro				Ċ.		[~	(7)	4	5	Ó		8	တြ န	_[6	ř	ے ا	3

											TAT		Nah Services (72hr /	¥X		8					7	7		
	1			<u>.</u> :									andard	is .							2			Time:
				Nan	ASF	ļ	ତ୍			ĺ	:				1	8				7		2		Ë
}		ber:		ler's	5	,	WET(STLC)	TOLP		Total		/u tipe to 1	9009 pe	-F-	_					.				
		STAL Invoice Number		Sampler's Name:	P		ME	-				(uZ !N ча	M-۱۲ Metals 									-		
η.		Se	ŀ			  @				$\vdash$			12 Shab		┢			$\mathbf{x}^{\dagger}$	_					
j		2	TSI		pt may 3/2 12 0-15	Some	엉							)님	-		_					,	by:	
7_		AL	REQUEST		9	<u>e</u>							ganic Lead	10	+-								Received by:	
HAIN OF CUSTODY RECORD	ć		삤	S	1. TT	None	췽					(1.814) H	N-Polar O & G/TRPI	PN									Rece	Date:
ည			<u>  XS</u>		8			$\top$		'		50)	tal Oil & Grease (55	<u>oT</u>					$\top$	-				
HE HE			ANALYSIS	2 د	72	₹	Ò			1			9S3\07S8\825 A 625\8270\525	13										
<u></u>			4	Q	<i>5</i> ~		ζ			٦		560	8/2 \$2\$(0\$2\$/\$5\8	33	-			-						6
d	(629				3					TCLP		(	S'809) 0808/809 A	<del>1</del> 3		-						•		Time:
S	وَق											qes)\202\208	ioite99) 0808\808 A	13										
당;	2				· •			=					0S08/S09 A	13										
<b>上</b>	$\underline{\mathbf{c}}$	₽		_	note:			Sample Condition				1208/40	2\S.202\0108\109 A	13									by:	
Z	က (၁) (၁)	H		KS:	2		Coolor Tomp	ैं				oil/kerosene(8015)	Hdiesel/TPHmotor o	31.									Relinquished by:	
₹ ¦	O O	<u>0</u>		REMARKS:			Į,	g g				38TM\(3108\0S(	-EX/TPHgas (602/80	18									nquis	äi
٠	ပ် (	Page		RE			5	Sar	돕				-EX (602/8020)503.	L8									Reli	Date:
}~													yer:	10										18/99 Time: 18:38 Date: Time:
٦.											Matrix			iΑ										>
i. J	1947	947					~	>			Me		lio	°S >	1-					-	_	<b>~</b>	-	18:3%
	Phone: (916) 362-8947	FAX: (916) 362-0947					79298						ater	Μ									-	e:
i	916)	916)					ک			ative	_		yer:	Ю										Lime:
,	one: (	) XX					Ó			Preservative	Used		əuc	PN	7 -					<del> </del>		>	T	10
1	Ŗ.	"				1	4			Pre			SI/HMO3/IEE	)H >	<							1	<i>H</i>	18/99
			Phone:	FAX:	:sss:		:#q	P.O.#:				phy.	her: pluth	<u>10</u>  >	$\leftarrow$			1			:		d by	1/9
!		l	Pho	Ш	Addre		Project/Job#;	ď	,		ner		0 mL Plastic	52					·			$\leq$		
					න් වූ		Proj		٠.		Container	,	amber bottle	1 4									Page	Date:
Š			0	ار	Nau						ပိ		eveels see	ή <b>8</b> ,					1.3					5
χ,		7.	ζ,	ر و	Billing Name & Address:								AOV Jm	07										3
90		9582	C	ر	_						βL			Time				30		.			$ \cdot $	00
7	:	CA CA						-			Sampling	• .		+	-	<u> </u>			_	_				)
ĭ	ory	nentc	/	<u> </u>					•	ľ	Sar		1999	Date	-			_	+	4				Time:
ECHNOLOGY, INC.	rat	acrar		-							- ,		<u> </u>			, 9	4	5	4	2 0	5	3	M	
	abo	12 S											•		2 6	1.0.	-09	Ö	٥ (م	10.9	51.0-	-00	//	159
្សា	4 Li	e, #1	÷	er:	,			<u>;</u>						SAMPLE ID	2 2	- 9	- <b>2</b>	4	4	1/2		81		/8/
3	tica	Circl	٠.	anag	ddres		ame:	ocatic						SAN	_	12816	2816	41971	1.2 8.7	30	2018	2818	sh⊛c	1,0
SPARGE	Analytical Laboratory	3050 Fite Circle, #112 Sacramento, CA 95827	Company:	Project Manager:	Report Address:		Project Name:	Project Location:	l 	<u> </u> -		<del></del>			, .	-		-				<u> </u>	Relinquished	e: (
×	4n	305(	õ	Proj	Rep	ŀ	Proj	Proj						일	-  ~	၂ ဧ	4	5	6,	. &	6	10,	Rel	Date:

				 O		-						TAT	Standard Bush Selvices (72hr A48hry 24hr / 12hr) Joligasy Weekend Rush	K.S			シンプ							.je:	
	7			Sampler's Name:	Z		<u>[</u>		_				O 7 0 9 bead	X							1	->		Time:	
]	her	3		oler's			WET(STLC)		TCLP	١	Total		CAM-5 Metals (Cd, Cr, Pb, Ni, Zn)	1—						-			1		
j	STAL Invoice Number			Samp			WE						slateM 71-MAC	┢					+	$\dagger$					
	G	31.	_   _			<u>a</u>	$\mathbf{x}$																		
	2	<u> </u>	REQUEST			Some	ş						l)SE										Received by:		
7	νĮ					ne	$\mathbf{x}$			1			bsed oinsgrO										ëive		ز
Ĕ.	2/031  7  2	и,				None	Ş			ı			Von-Polar O & G/TRPH (418.1)										Rec	Date:	<u>;</u>
) ၂			XS				$\checkmark$						Total Oil & Grease (5520)												
ב ה			ANALYSIS			¥	乡			ľ			3S2\0\S8\8S9 A9												
5		ľ	۷					ပွ			┙		5PA 624/8240/524.2/8260											<u>a</u>	NZ Z
5 6	ひ、	ı									TCLP		(PCB'S)											Time:	DI FASE READ REVERSE SIDE FOR TERMS AND CONDITIONS
5 C	وہا												802\202\(esticitesq) 0808\809 Aq												I Z
3 6	V								ڃ				0S08\S09 Aq												
, ,	<u>.</u>	5						Ö	diti				FS08/402\S.S02\0108\F09 A9	ł									by:		
	ZO	1		KS:				leu	Š				TPHdiesel/TPHmotor oil/kerosene(8015)										shed		
֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֡֓֓֓֓֓֓֡֓֓֡֓֡	رن No. المري المريد	<u> </u>		REMARKS:	•			Cooler Temp.	Sample Condition	۱			31EX/TPHgas (602/8020/8015)/MTBE										Relinquished by:	l a	الم
		Š	-   .	H				ပိ	Sar	핍			STEX (602/8020)503.1										Rei	Date:	֡֟֝֟֝֟֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֟֓֓֓֓֓֓
		T											Офрек:												ווי
												Matrix	ıj.f	1										38	֓֞֜֝֟֓֓֓֓֓֟֟֓֓֓֓֓֓֓֓֓֓֟֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓
	947	34/					6	$\sim$				ğ	lios	X	-	_		_	$\dashv$			>	1	8	, ] [
	362-8	705						5	,				Water	<u> </u>										و.	
	Phone: (916) 362-8947	FAX: (916) 362-0947			•		0	52.8+		-	Preservative	-0	Other:	1									<b>]</b> ,	T.	
	one: (	ž Ž			•		۲	$\widetilde{\mathcal{T}}$	•	1	serv	Used	Jone	M			_	$\Rightarrow$		$\Rightarrow$	$\pm$	- ->	1	32	֓֓֓֓֓֓֓֓֓֟֝֟֓֓֓֓֓֓֓֓֓֓֟֟
	Pho	1		•			١,	٠,			Pre		нсі/ниоз/СБ	比					7				1	<b>₹</b> %	
			Phone:	FAX:	ess:		#:		P.O.#:				Wher: plestic bay	Y	_							1	\$ 0 %	£ 1	,†=
			Pho	ш.	Addre		Project/Job#:		Ŏ.	١		ner	SO mL Plastic	3							_		Regelved by	Date:	
					න ව		Proj			Į		Container	L amber bottle	-									H. 188	٢	7
2		١			) Nan					١		ပ	Srass Sleeve	╁							_		-	_	
,	. !				Billing Name & Address:					ļ			AOV Jm 0	╂	-	_					_	-	<b>-</b> '	8:35	
CHINOLOGY, INC.	Č	3050 Fite Circle, #112 Sacramento, CA 95827		$\supset$								ing	E I											8	3
5		<u>ပ</u>		1					•			Sampling		┿	<del> </del>					_	$\neg$		$\{ \}$	И.	n
2	tor	men		ر								Sa	   विविध	8117	+-								$t_{\mathcal{K}} I^{\prime}$		Ĭ
5	ora	Sacr	7	ر ا						İ				<u>  [</u>	10.3	i,	٠٥.٩	0.15	0.3	0.0	2.	75 /	ME		7
<u> </u>	ab	112		_						1			A MA MA MA MA MA MA MA MA MA MA MA MA MA	707	3 6	-0.6	2	0	Ĭ	,	- 0.9	( )		100	┱-
ũ	al I	ge, #		ger:	SSS:		"		ion:					2	12	_	7	811	622	77		17823	yd by	61/	1
SFAHGE	Analytical Laboratory	ē Či	Company:	Project Manager:	Report Address:		Project Name:		Project Location:				Š.	17 871	12821	181	11 82	118	126	17871	1282	921		7	آ و
_	7	Ē	ğ	ect i	ort,		<del>j</del>		ect	ŀ			C	+-:		-	4,	5,	• 9	*	8	o Ç	4 <u>Ē</u>	Date.	<u>i</u>

													Holiday/Weekend Rush		
Á	6					ŀ						TAT	(12h / 48hr / 24hr / 12hr)		
	No.			. <del>.</del>									brabnat2 2 4 0 1 - 2 2	_	je.
1				Sampler's Name:	A	-	<u>ට</u>	1							Time:
٦		er:		l's l	Z	3	STL		10P		Total		Clob bead X	_	
1		umk		mple	•	,	WET(STLC)		ᅵ		≝		CAM-5 Metals (Cd, Cr, Pb, Ni, Zn)	4	
-1		STAL Invoice Number		Sa			_						CAM-17 Metals	_	
Í		Voic	H			Some	엉							<b></b>	
		Ë	REQUEST			တိ		_				٠	HCI HCI	Received by:	
		Y.	EQ		,	None	송						Organic Lead	Ceive	te:
HO						ž							Non-Polar O & G/TRPH (418.1)	æ	Date:
ပ္ပ			LYS			₩.	ð		İ				Total Oil & Grease (5520)		
<b>CUSTODY RECORD</b>			ANALYSIS			_	0		_		11		EPA 625/8270/525		
<u>&gt;</u>	~		٩			ŀ	:	ပွ			TCLP		EPA 624/8240/524.2/8260		.e.
<u>5</u>	633	M									1		EPA 608/8080 (PCB'S)		Time:
S	9/	2											EPA 608/8080 (Pesticides)/505/508		6 (18) Time: 18:35 Date: Time:
3	N		1						5				EPA 602/8020		] [
YAIN OF	Š.	<u>ه</u>						اه	ğ				EPA 601/8010/502.2/504/8021	<u>i</u>	
Z	_	$\dashv$		KS:			١,		힝				TPHdiesel/TPHmotor oil/kerosene(8015)	shed	
₹	C.O.C.	9	*	REMARKS:			.	Cooler Temp.	Sample Condition				BTEX/TPHgas (602/8020/8015)/MTBE	Relinquished by:	oi.
	3	Page		Ä			-   ,	ပ္ပု	Sar	핎			BTEX (602/8020)503.1	Reli	Date:
													Offher:		
7				·			0	7	•			Matrix	ıiA li		2
	947	947										Ma	lios X	Þ	م
	Phone: (916) 362-8947	FAX: (916) 362-0947					0.0	7					1918W		e.
	116) 3	,16)					Ö	ò	•		tive		Offner:		Time:
j	ne: (5	) (3)					4	7			Preservative	Used	9uon None	-	2
1	Pho	L.					•				Pres	1	HCI/HNO3/(E)		18
ļ			je:	FAX:	i		#		PO.#:				ers9 2412/d : ofther: plas 4 5 6 6 6 6	ا څير	C
,			Phone:	d Pa			ot/Jot		9.			ler	S20 mL Plastic	- ke	, i
				8			Project/Job#:					Container	1 L amber bottle	Beceived by:	Date:
Š			,	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \			_					ୄୖଌ	Brass Sleeve		2
Y, 1			(	FAX: Billing Name & Address:	n								AOV Jm 04	] [	8:3
0		35827		8	ì								9 9	7	8)
7		CAS	1	ĴΙ								Sampling	Time	$I \setminus I$	
20	2	ento,										Sam	1949 Date		Time:
ECHNOLOGY, INC.	ato	cram	\								_			WE	<i>y</i>
III	bor	2 Sa	٠.	-									10.6 10.6 10.6 10.6 10.6 10.6 10.6 10.6		28
	La	#112			_				• •				PLE DO CO CO CO CO CO CO CO CO CO CO CO CO CO		(Z)
GE	cal	ircle,	] .;	nagei			ne:		ation	•			SAMPLE ID 12826-0.15 12826-0.6 12826-0.6 12827-0.15 128	uished by:	6
SPARGER	Analytical Laboratory	3050 Fite Circle, #112 Sacramento, CA 95827	Company:	Project Manager:			Project Name:		Project Location:					Relinquished by:	
2	na	)50 F	l mo	rojec	2		rojec		rojec				NO 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	Zelin	Date:

COCK   12 Bornatory   Cock   12 Bornatory   Cock   13 Bornatory   Cock   14 Bornatory   Cock   15 Bornatory   Cock   Cock   15 Bornatory   Cock   C	טראה טהה		COUNTY OF ONLY	5	1, 11		_									٠.		5	, ` -	5		)			5	נ					٠.	2	7	_
Phones   P	Analytica 3050 Fite Circl	1 <b>  Labor:</b> e, #112 Sacı	<b>itory</b> amento, CA	95827		*		:	L-La	Phone	: (916 : (916	) 362. ) 362-	-8947			C.C.	C	Ĭ~		/	63	4	:		(,0	STAL	. Inve	oice	Nun	her				
Proceedings   Process	Company:		+				"	hone	÷:														AN/	\LYS	IS H	EQL	EST							
Propertion   1   1   2   2   3   3   4   4   4   4   4   4   4   4	Project Manag	191:	· ·	ز	7		:	Ϋ́	ÿ				•			REM	IARk	(S:			-	•				,			samp	oler's	Nan	.; E		
Poleotion   1   1   1   1   1   1   1   1   1	Report Addres	:58		<b>B</b>	illing f	Name	& Ac	ddres	ë							.S	401	<i>6</i>	<u>a</u>	¥	18.	15/		لخ	2	328	0	9		X				
1   1   1   1   1   1   1   1   1   1						6															<u> </u>			₹ ₹	ž	au >	Son	Te 、		1 1		L		
Sample Condition   Post   Po	Project Name:					L	Jojec	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)			7	2	č	ι∨. ⇔	` -	     	er Te	emp.				)°			1	۷		_	) }	0	3	<del></del>	-	
SAMPLE ID  Sampling  Containe  Conta	Project Locatic	:ic						P.O.#	#:						•	Sam	) eld	Sono	lition	_										III				
1   1   1   1   1   1   1   1   1   1	•	,														H					-													
Sampling   Sampling									ഥ	resei	vativ	ø			'							CLP								Total				
1   1   2   2   2   2   2   2   2   2			Samplir	J Bt		Co	tain	j.		Us	ed		Σ	atrix				•															TAT	_
17 828 - 0.9 6   3 12:00		APLE ID		9 E	AOV Jm 0‡	eveelS assid								JiA	Other:				, <del></del>							Organic Lead					2/09 npan	brabnatd	Rush Services (72hr (48hr / 12hr)	Holiday/Weekend Rush
12 82 8 - 0 . 6 6   3   12:00	1 80	1							1	<u>).</u>	Н	₩.	$\vdash$	1			┢	<del> </del>	<del>  /-</del>	H	1	H	1	$\vdash$	Н-	1		1	-	1		4 -	1	
17.828 - 0.9 6/18  1.818 - 0.9 6/18    Regelied by:   Regelied by:   Received by:   Received by:   Time:   8.38   Date:   Time:   18.38   Date:   Time:   18.38   Date:   Time:   18.38   Date:   Time	<b>N</b> _	76-06	Ž,	Š			<u> </u>		×				X				_		-	-	-	-	ļ	<u> </u>	ļ			X	'		V	:::	X	
Uished by:         Received by:           A 1 Time:         18:35      Page   Pag		$\sim$	8	3		+	$\top$		<b>\</b>	¥ \  ->	\ \ \		X			1		-			-	-	-	-	-								X	
uished by:         Received by:           A 1 Time:         18:34 Date:    Time:	4		-			1	-																									EC.		
uished by:         Received by:           At 14 54 Time:         18:34 Date:         18:35 Date:         Time:         Time:         18:35 Date:         Time:         Tim	22																																	
uished by:         Received by:           (#)   Q   9   1 me.           8   35   1 me.    Received by:  Time:	9											.	-															·						
uished by:         Referred by:         Received by:           (#) [4] 64 Time:         [8:34] Date:         Date:	2									_														-					•			7		
uished by:         Received by:           (#)   Q   9   Time:           8   35   Date:	8																			$\dashv$	-			_							-	(4 d) 94.89()		
uished by:  Received by:  Received by:  Received by:  Received by:  Received by:  Received by:  Received by:  Received by:  Received by:  Received by:  Received by:  Received by:  Received by:  Received by:  Received by:	တ										-					$\dashv$				$\dashv$		-	_									2		
uished by:    Received by:   Receive	10			. /				-					_					_													_			
14/4/14/54 Time: 18:35 Date: 18:35 Date: Date:	Relinquishec	jā.	A	H			Refe	ived	př.	the						Relin	nduis	hed t	. <del>.</del>		٠.				Re	seive	d by:							
	Date: KW	19/59	Time:	8/	1:3	1	2 5	72		I/>			-	200	(	2					-F	3			2	غ ا					F	٥		



July 1, 1999

Invoice #:

11218

Project Name: Caltrans Rte. 12/505

Project #:

782983

Mr. Dave Smith IT Corporation 11315 Sunrise Gold Circle Ste. A Rancho Cordova, CA 95742

Mr. Dave Smith,

Enclosed are the analytical results for our invoice #11218. The samples were received at Sparger Technology Analytical Lab on June 21, 1999.

The samples were received in EPA specified containers. The samples were transported and received under documented chain of custody and stored at four (4) degrees C until analysis was performed.

The report consists of the following sections:

- Sample Description & Analysis Request ١.
- 11. Quality Control Report
- 111. Analysis Results

No problems were encountered with the analysis of your samples.

If you require additional information please give us a call at (916) 362-8947.

Sincerely,

R. L. James

**Laboratory Director** 



#### Sample Description & Analysis Request

Laboratory ID	Matrix	Sample Date	Sample ID	Analysis Description
11218 0	01 S	6/21/99	505B1 - 0.15	6010
4200-10-30-30-30-30-30-30-30-30-30-30-30-30-30	02 S	6/21/99	505B1 - 0.3	6010
11218 0	03 S	6/21/99	505B1 = 0.66	6010
11218 0	04 S	6/21/99	505B2 - 0.15	6010
11218 0	05 S	6/21/99	505B2 - 0.3	9045
				6010
11218 0	06   S	6/21/99	505B20.66	6010
11218 0	07   S	6/21/99	505B3 - 0:15	6010
11218	08 S	6/21/99	505B3 - 0.3	6010
11218	09 - S	6/21/99	505B3 - 0:66	6010
China de Caracia de Ca	10. S	6/21/99	505B4 = 0.15	6010
11218	11 S	6/21/99	505B4 - 0.3	6010
11218 0	12. S	6/21/99	505B4 = 0.66	6010
11218	13 S	6/21/99	505B5 - 0.15	6010
11218	14 S	6/21/99	505B5 - 0.3	6010
11218 0	15. S.	6/21/99	505B5 - 0.66	6010
11218	16 S	6/21/99	505B6 - 0.15	6010
11218 C	)17 S	6/21/99	505B6 - 0.3	6010
11218	)18 S	6/21/99	505B6 - 0.66	9045
				6010
11218	)19   S	6/21/99	505B7 ± 0:15	6010
11218 0	)20. S	6/21/99	505B7 - 0.37	6010
11218 (	)21 S	. 6/21/99±	505B7 - 0.66	6010
11218 (	)22 S	6/21/99	505B8 - 0.15	6010
11218 (	)23 S	6/21/99	505B8-0.3 3 3 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	9045
				6010
11218 (	024 S	6/21/99	505B8 - 0.66	6010
11218	025   S	6/21/99	505B9 - 0.15	6010
Secretary and the second secon	026 S	6/21/99	505B9 - 0.3	6010
AND STREET, THE STREET, THE STREET, ST	027 S	Company of the Compan	505B9 - 0.66	6010
STATE WAS AND AND AND AND AND AND AND AND AND AND	028 S		505B10=0.15	6010
	029 S	The state of the s	505B10 = 0:3	6010
	030: S		505B10 - 0.66	6010



## Sample Description & Analysis Request

Laboratory ID	Matrix Sample Date	Sample ID	Analysis Descri	ption
11218 - 03	S   6/21/99 50	5B11 = 0:15	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	9045
				6010
11218 032	2   S   6/21/99 50	5B11=0.3		6010
11218 033	3 S 6/21/99 50	5B11 - 0.66		6010

#### II Quality Control

- A. <u>Project Specific QC</u>. No project specific QC (i.e., spikes and/or duplicates) was requested.
- B. <u>Method Blank Results</u>. A method blank is a laboratory-generated sample which assesses the degree to which laboratory operations and procedures cause false-positive analytical results for your sample.

No target parameters were detected in the method blank associated with your sample at the reporting limit levels noted on the data sheets in the Analytical Results section.

- C. <u>Laboratory Control Spike</u>. A Laboratory Control Spike (LCS) is a sample which is spiked with known analyte concentrations, and analyzed at approximately 10% of the sample load in order to establish method-specific control limits. The LCS results associated with your samples are on the attached Laboratory Control Spike and Laboratory Control Spike Duplicate Analysis Report.
- Matrix Spike Results. A Matrix Spike is a sample which is spiked with known analyte concentrations, and analyzed at approximately 10% of the sample load in order to establish method-specific control limits. The Matrix Spike results associated with your samples are on the attached Matrix Spike and Matrix Spike Duplicate Analysis Report.

Accuracy is measured by Percent Recovery as in:

% recovery =  $(measured concentration) \times 100$ (actual concentration)

## III Analysis Results

Results are on the attached data sheets.



## **EPA Method 9045** pН

Attention:

Mr. Dave Smith

IT Corporation

11315 Sunrise Gold Circle, Ste. A

Rancho Cordova, CA 95814

Date Sampled:

Date Received:

Jun 21, 1999

Date Analyzed:

Jun 21, 1999 Jun 22, 1999

Invoice #:

11218JUN99

Project #:

782983

Project Name:

Caltrans Rte. 12/505

Matrix:

Soil

Dilution:

	Client ID	Lab ID	Amount	Limit
pН	505B2 - 0.3	11218-005A	6.5	N.A.
рН	505B6 - 0.66	11218-018A	6.6	N.A.
рН	505B8 - 0.3	11218-023A	6.7	N.A.
рН	505B11 - 0.15	11218-031A	6.6	N.A.

N.A. = Not Applicable

E. McKinney, inorganics Manager

Jun 22, 1999

Date Reported

N.D. = Not Detected. Compound(s) may be present at concentrations below the detection limit.

N.R. = Not Requested.



# **EPA Method 6010** Lead **Method Blank**

Attention:

Mr. Dave Smith

IT Corporation

11315 Sunrise Gold Circle, Ste. A

Rancho Cordova, CA 95814

Date Sampled:

Jun 21, 1999

Date Received:

Jun 21, 1999

Date Digested:

Jun 22, 1999 Jun 23, 1999

Date Analyzed:

Invoice #:

11218JUN99

Project #:

782983

Project Name:

Caltrans Rte. 12/505

Client ID:

Method Blank

LAB ID:

990622A

Matrix:

Soil

Dilution:

1

1:

Reporting

Units Limit Concentration Name ND 1.0 mg/kg Lead (Pb)

ppm= parts per million = mg/kg = milligram per kilogram

ND = Not Detected. Compound(s) may be present at concentrations below the detection limit.

Jun 23, 1999

Date Reported



# **EPA Method 6010** Lead LCS / LCSD Recoveries

Attention:

Mr. Dave Smith

Date Sampled:

Jun 21, 1999

IT Corporation

Date Received:

Jun 21, 1999

11315 Sunrise Gold Circle, Ste. A

Date Digested: Jun 22, 1999

Rancho Cordova, CA 95814

Date Analyzed: Jun 23, 1999

Invoice #:

11218JUN99

Project #:

782983

Project Name:

Caltrans Rte. 12/505

Client ID:

LCS/LCSD

LAB ID:

990622A

Matrix:

Soil

Dilution:

1:

				•	U	Inits : (mg/k <mark>g)</mark>
Element	Spik <b>e</b> Conc.	LCS	% Recove <b>ry</b>	Duplicate LCS	Duplicate % Recovery	% RPD
Lead (Pb)	50.0	51.6	103%	51.6	103%	0.0%

ppm= parts per million = mg/kg = milligram per kilogram

ND = Not Detected. Compound(s) may be present at concentrations below the detection limit.

Jun 23, 1999

Date Reported

SPARGER TECHNOLOGY ANALYTICAL LABORATORY, INC. IS CERTIFIED BY THE STATE OF CALIFORNIA DEPARTMENT OF HEALTH SERVICES AS A HAZARDOUS WASTE TESTING LABORATORY (Certification No. 1614)

6010lcss



## **EPA Method 6010** Lead **MS/MSD** Recoveries

Attention:

Mr. Dave Smith

**IT Corporation** 

11315 Sunrise Gold Circle, Ste. A

Rancho Cordova, CA 95814

Date Sampled: Jun 21, 1999

Date Received: Jun 21, 1999

Date Digested: Jun 22, 1999

Date Analyzed: Jun 23, 1999

Invoice #:

11218JUN99

Project #:

782983

Project Name: Caltrans Rte. 12/505

Client ID:

MS/MSD

LAB ID:

11218-001A

Matrix:

Soil

Dilution:

Units: (mg/kg)

							· (gg/
Element	Sample Conc.	Spike Conc.	MS	% Recovery	Duplicate MSD	Duplicate % Recove <b>ry</b>	% RPD
Lead (Pb)	510	50.0	420	*	438	*	*

ppm= parts per million = mg/Kg = milligram per kilogram

ND = Not Detected. Compound(s) may be present at concentrations below the detection limit.

\*Note if sample concentration is higher than the spike value irregular recoveries can occur.

E. McKinney, Inorganics Manager

Jun 23, 1999

Date Reported

SPARGER TECHNOLOGY ANALYTICAL LABORATORY, INC. IS CERTIFIED BY THE STATE OF CALIFORNIA DEPARTMENT OF HEALTH SERVICES AS A HAZARDOUS WASTE TESTING LABORATORY (Certification No. 1614)

6010mss



## **EPA Method 6010** Lead

Attention:

Mr. Dave Smith

Date Sampled:

Jun 21, 1999

IT Corporation

Date Received:

Jun 21, 1999

11315 Sunrise Gold Circle, Ste. A

Date Digested:

Jun 22, 1999

Rancho Cordova, CA 95814

Date Analyzed:

Jun 23, 1999

Invoice #:

11218JUN99

Project #:

782983

Project Name:

Caltrans Rte. 12/505

Matrix:

Soil

Dilution:

				Reporti <b>ng</b>	
Name	Client ID	LAB ID	Concentration	Limit	Units
		14040 0044	F40	1.0	mg/kg
Lead (Pb)	505B1 - 0.15	11218-001A	510	1.0	• •
Lead (Pb)	505B1 - 0.3	11218-002A	6.9	1.0	mg/kg
Lead (Pb)	505B1 - 0.66	11218-003A	11	1.0	mg/kg
Lead (Pb)	505B2 - 0.15	11218-004A	133	1.0	mg/kg
Lead (Pb)	505B2 - 0.3	11218-005A	5.5	1.0	mg/kg
Lead (Pb)	505B2 - 0.66	11218-006A	7.0	1.0	mg/kg
Lead (Pb)	505B3 - 0.15	11218-007A	255	1.0	mg/k
Lead (Pb)	505B3 - 0.3	11218-008A	5.8	1.0	mg/k
Lead (Pb)	505B3 - 0.66	111218-009A	7.3	1.0	mg/k
Lead (Pb)	505B4 - 0.15	111218-010A	12	1.0	mg/k
Lead (Pb)	505B4 - 0.3	11218-011A	6.6	1.0	mg/k

ppm= parts per million = mg/kg = milligram per kilogram

ND = Not Detected. Compound(s) may be present at concentrations below the detection limit.

Jun 23, 1999

Date Reported

SPARGER TECHNOLOGY ANALYTICAL LABORATORY, INC. IS CERTIFIED BY THE STATE OF CALIFORNIA DEPARTMENT OF HEALTH SERVICES AS A HAZARDOUS WASTE TESTING LABORATORY (Certification No. 1614)

6010001



## **EPA Method 6010** Lead

Attention:

Mr. Dave Smith

Date Sampled:

Jun 21, 1999

**IT Corporation** 

Date Received:

Jun 21, 1999

11315 Sunrise Gold Circle, Ste. A

Date Digested:

Jun 22, 1999

Rancho Cordova, CA 95814

Date Analyzed:

Invoice #:

Jun 23, 1999 11218JUN99

Project #:

782983

Project Name:

Caltrans Rte. 12/505

Matrix:

Soil

Dilution:

Name	Client ID	LAB ID	Concentration	Reporting Limit	Units
ead (Pb)	505B4 - 0.66	11218-012A	6.2	1.0	mg/kg
ead (Pb)	505B5 - 0.15	11218-013A	21	1.0	mg/kg
ead (Pb)	505B5 - 0.3	11218-014A	9.4	1.0	mg/k <b>g</b>
_ead (Pb)	505B5 - 0.66	11218-015A	9.7	1.0	mg/k <b>g</b>
ead (Pb)	505B6 - 0.15	11218-016A	17 ·	1.0	mg/k <b>g</b>
₋ead (Pb)	505B6 - 0.3	11218-017A	5.9	1.0	mg/k <b>g</b>
_ead (Pb)	505B6 - 0.66	11218-018A	7.4	1.0	mg/k <b>g</b>
_ead (Pb)	505B7 - 0.15	11218-019A	56	1.0	mg/k <b>g</b>
_ead (Pb)	505B7 - 0.3	111218-020A	10	1.0	mg/k <b>g</b>
_ead (Pb)	505B7 - 0.66	111218-021A	11	1.0	mg/k <b>g</b>
Lead (Pb)	505B8 - 0.15	11218-022A	68	1.0	mg/k <b>g</b>

ppm= parts per million = mg/kg = milligram per kilogram

ND = Not Detected. Compound(s) may be present at concentrations below the detection limit.

Jun 23, 1999

Date Reported



## **EPA Method 6010** Lead

Attention:

Mr. Dave Smith

**IT** Corporation

11315 Sunrise Gold Circle, Ste. A

Rancho Cordova, CA 95814

Date Sampled:

Jun 21, 1999

Date Received:

Jun 21, 1999

Date Digested:

Jun 22, 1999

Date Analyzed:

Jun 23, 1999

Invoice #:

11218JUN99

Project #:

782983

Project Name:

Caltrans Rte. 12/505

Matrix:

Soil

Dilution:

		· ·		'	
Name	Client ID	LAB ID	Concentration	Reporting Limit	Units
Lead (Pb)	505B8 - 0.3	11218-023A	15	1.0	mg/k <b>g</b>
Lead (Pb)	505B8 - 0.66	11218-024A	10	1.0	mg/k <b>g</b>
Lead (Pb)	505B9 - 0.15	11218-025 <b>A</b>	7.0	1.0	mg/k <b>g</b>
Lead (Pb)	505B9 - 0.3	11218-026A	16	1.0	mg/k <b>g</b>
Lead (Pb)	505B9 - 0.66	11218-027A	11	1.0	mg/k <b>g</b>
Lead (Pb)	505B10 - 0.1 <b>5</b>	11218-028A	7.9	1.0	mg/kg
Lead (Pb)	505B10 - 0.3	11218-029 <b>A</b>	5.8	1.0	mg/kg
Lead (Pb)	505B10 - 0.66	11218-030A	6.3	1.0	mg/kg
Lead (Pb)	505B11 - 0.1 <b>5</b>	111218-031A	7.6	1.0	mg/kg
Lead (Pb)	505B11 - 0.3	111218-032A	6.7	1.0	mg/kg
Lead (Pb)	505B11 - 0.66	11218-033A	4.4	1.0	mg/k <b>g</b>

ppm= parts per million = mg/kg = milligram per kilogram

ND = Not Detected. Compound(s) may be present at concentrations below the detection limit.

E. McKinney, Inorganics Manager

Jun 23, 1999

Date Reported

SPARGER TECHNOLOGY ANALYTICAL LABORATORY, INC. IS CERTIFIED BY THE STATE OF CALIFORNIA DEPARTMENT OF HEALTH SERVICES AS A HAZARDOUS WASTE TESTING LABORATORY (Certification No. 1614)

6010023

		, T				г —			<u></u>		т-			T	1	Ť.	Т		Т				—	٦
			*							<b>-</b>	L	Holiday/Weekend Rush	Į ,			-		_		$\perp$	$\dashv$			
				1 1						TAT	(μ	Hush Services (72hr / 48hr / 24hr / 12h		_						=	<b>&gt;</b>			ŀ
1			Э	4		<u> </u>		· —	T	ı.	-	Standard			•	-		_		+	$\dashv$		Time:	į
` . M.			Sampler's Name:	75		9			_		-	Q/09 pee-	X							$\pm$	_		<b> </b>	
	nbei		oler's	1		WET(STLC)	[ ] [ ]	<u> </u>	Total		╁	CAM-5 Metals (Cd, Cr, Pb, Ni, Zn)		<u>}                                    </u>		+			-	1				
. }	Nun		ami	•		×					t	slateM 71-MAC	<del> </del>		_	<del>                                     </del>		•	$\dashv$					١
-	ice	lt	- 0)		To				<del> </del>	_	t	Hd 5406				X					┪			1
	STAL Invoice Number	IS			Some	乡					$\dagger$	IOF	┢	Ÿ							╗	þ.		
-7.	Α̈́	REQUEST			$\vdash$				1	$\vdash$	十	bsed oinsgrO									T	Received by:		
<u>}</u>	S	1 [			None	乡				-	t	Von-Polar O & G/TRPH (418.1)				-		-	1			Rece	Date.	2 2
Lay Fredon		ANALYSIS			-			-	1		t	Total Oil & Grease (5520)					. 0		1	;=	1			1
	٠	AL)			¥	乡					1	2S8/07S8/8S9 Aq∃			_		C		4	,				ł
<u>&gt;</u>		Ā			-		ပ္စ		<u> </u>		T	PPA 624/8240/524.2/8260					2						i	15
ָרָ בְּי בּי	32			;					TCLP	-	t	(S'BO9) 808/809 APE											Ĕ	// - C//   Date.
ST	,63 <u>.</u>							-	1		1	808/808/ (Pesticides)/505/508					5	e	Se					1
	27				1.			=			T	0208/S050					1	•						١
Ļ	No.		٠.								1	1208/40502.2/504/8021				-		T	¥	3		by:		ı
ļ		]	KS:	•			emb	3			(9	FPHdiesel/TPHmotor oil/kerosene(801	-									shed		
HA OF	O.C. Page /		REMARKS.				Cooler Temp.	Sample Condition			T	3TEX/TPHgas (602/8020/8015)/MTBE										Relinquished by	i	
-	C.O.		REI				8	티	:		T	FTEX (602/8020)503.1	3									Reli		Ľ
			5					<del></del>			T	上江	×	1										
۲		350	2355	٠.						Matrix	Í	lir.	_									I	12	
	2-8947	2	·~~			_ ا	<b>△</b>		١.	Z		ioé	X			-				<u>-</u>	≥		3.7	)
	62-8 862-9	858	) _ l	4		(5	867.84					Vater	\					·					.0	) [0
	Phone: (916) 362 FAX: (916) 362	0	۱ ر			7	<u>.</u>		tive	_		)ther:											Time.	Ξ
<u>ئ</u>	ne: (9	916	916	Suite			7		Preservative	Used	250	youe										_		67 (7 THIE.
	Pho			Su	7 2		,		Pre	<u> </u>	Ŀ	нсі/ниозєє о	$\triangleright$		_				_		1		1.92	1
		jë.	FAX:		1	#.		P.O.#:				)ther: plastic bass	X	\ <u>-</u>							3	d by:	· ·	1
1		Phone:	Ţ.	& Address:	456	Project/Job#:				Je	<u> </u>	50 mL Plastic	2									Received	) //otec	1
		1		88		Proje		3	5	Container	T T	L amber bottle	L		_	<u> </u>							) - E	Z
15		17		Nam (2)	7					ပိ	3	irass Sleeve											0	,
7, 10		3	Z	Billing Name & Address:				. 16.4				AOV Jm 0	ħ									,	.دم	١,
CHNULDGY, "VC.	15827	( , roora	", miff		Cordova		! _	. Vace the llow Return		٥	5	E F				8.00								-
1 1	CA	1	\"\\	Suncise	Jo.		505/21	1/4	3	Sampling			+-			ac						$\bigwedge$	1	
\frac{1}{2}	<b>7.7</b>		Save	Sm	Co	\	5	2		San	g	1999			-+	-	┼			<del>-</del>	×			Ē
1 5	ratc	,	Da			:	2/	Š	; -		┸	21	+-	<del>  -</del>	9	200	1=0	15	3	79	3	l V	H	$\exists$
4	ે છે		<u> </u>	s: 1/3/5	Rancho		1	, (				<u>9</u>	1 2 7	0	9.0	50582-0.15 50587-03	50582-0.66	-0.15	- 0.3	-0.66	0.1	A-7	F	
17	/ La		ı.	" " "	O.K	!	127	بر ان ان				Б Я		-	3	3/2	32.	83.	33-	33-	34-	W <u>É</u>	1	3
15	.ica		ınage	Idres	~	ıme:	4	t Location					FAC RI	50581	505RI	50582-0-505050505050505050505050505050505050	0.5	50583	50503	50503	50584		7	,
SrARGER	Analytical Laboratory 3050 Elte Circle #112 Secremento CA 95827	Company:	Project Manager:	Report Address:	•	Project Name:	Caltras	Project Location:	-				₹,	5,	51	<u> </u>	160	5	12	-		Relinquished by	,	6
5	<b>An</b> i	S	Proje	Repo		Proje	B	Proje		•		·	<u> </u>	2	က	4 rc	9	7	8	6	10	Reli	Date:	Dat
L.D	7 8			TT.		<u>a</u>	<u> </u>	<u>а</u>					<u> </u>	1				<u> </u>	لـــا			ш	┸	山

	uber:		Sampler's Name:	Ara	756	WET(STLC)		TCLP		Total	TAT	AM-5 Metals (Cd, Ct, Pb, Ni, Zn) sad 60/0 isandard ush Services (72hr (48h) 24hr / 12hr)	S T	7							<b>→</b>		Time:	
	STAL Invoice Number:	ST	Sam	· · · · · ·		OK WE						10 St 06 St 10 St	0		X				•			y:		
Q	STAL II	REQUEST			- F	None S							гдапіс Lead	0					-				Received by:	Date:
COF		<b>ANALYSIS</b> I			ŀ	z S						otal Oil & Grease (5520)	л									Re	De	
CUSTODY RECORD	_	ANA		•			ပ္စ		•	TCLP		0928/21/524.2/8260 526/0728/525	+										ie:	
STOI	7637 7				-					TC		PA 608/8080 (Pesticides)/505/508	_		1							,	Time:	
	No. 2						ابد	dition				PS 601/8010/502.2/504/8021	-							-	<u>Ø</u> .	by:		
HAIN OF	$\circ$		REMARKS:				Cooler Temp.	Sample Condition				TEX/TPHgas (602/8020/8015)/MTBE PHdiesel/TPHmotor oil/kerosene(8015)										Relinquished by:		
, <b>, ,</b> ,	2.0 Bag		REN				00 00	Sam	bН			грег: ТЕХ (602/8020)503.1	┿				-					Relin	Date:	
	-8947						~ ~			•	Matrix	lic r	s>	0-							A		7.99 Time: 11:5% Date: Time:	
	Phone: (916) 362-8947 FAX: (916) 362-0947						8528£			Preservative	Used	and Area Are		4							<b>*</b>		7 Time:/	
7 3	Phon FA		×	: <u>;</u>			•	#		Pres	.   n	Her: plants Lays	Ť	<u> </u>		_			<del>                                     </del>	-	之表	No.	21.99	
		Phone:	FAX:	Billing Name & Address:		Project/Job#:	•	P.O.#:			Container											Received	Date:	
Y, INC	2		^	3illing Nam					,		ပိ	AOV Jm (	+										150	
CHNOLOGY, INC.	<b>tory</b> amento CA 9582		d 12	<b>-</b>				•		,	Sampling		Date Time	11/0	9:30						<b>→</b>		Time: //	
SPARGER C	<b>ab</b>	Company:		Report Address:		Project Name:		Project Location:					2 2 C	27	50568-0.15	88	89	505 89-0.3	505 810-018	1	505 Bto. D. K	Relinquished by:	6/21/45	
SF	Ani	S	Proje	Керо		Proje		Proje					<u>Ş</u>	- 0	0 N	4	ည	9 1	-   ∞	6	유	Relir	Date:	

'Ann OF CUSTODY RECORD	". No. 27641 STAL Invoice Number:		ANALYSIS HEQUES!	KS: Samplers Name:			OK OK WET(STLC)		Sample Condition TCLP		TCLP	TAT		PHdiesel/TPHmotor oil/kerosene(80) A 601/8010/502.2/504/8021 PA 602/8020 PA 608/8080 (Pesticides)/505/508 PA 628/8020 (Pesticides)/505/508 PA 628/8020 (PCB'S) PA 628/		X	X	-2						F	Relinquished by:				
	P.	<u>:</u>		er's N		Z	(STLC		CLP		otal				<b>-</b>	X	X	7	9	75		1	4						
,	ב ב			ambi			WET		Ĕ		L		-			-			1				$\dashv$						
	. <u>a</u>	3	<u> </u>	.Ω.	•	T				-			+							_			$\dashv$	_					
	0/0		<u>,</u>				ğ X					_	╁		-f										Þ.				
: 1 : <u>1</u> .	. 4		3			⊢						_		rganic Lead						•					ived				
3	. U		뷥	•		2012	ž Š						T	on-Polar O & G/TRPH (418.1)	Ņ					-			-		Rece				
9													┪	otal Oil & Grease (5520)	ग				3			1							
H.	:		AL	٠			₹ŏ		:				1	525/0728/525 A	13														
<u></u>			₹			ŀ		၁			۵,		T	. ** 0978/5740/524/8560	13					) )									
5	4										T D			PA 608/8080 (PCB'S)	13				127										
ST	9					┢							十	805/505/(sebicides)/505/508	13				Č,			-		·					
3	2 2	╢					•		Ľ	.			T	0208/8020	13						·	٠ ونو							
. F.		5					•		ditio				T	1208/403/2.203/0108/109 Ac	33										څ				
Z		$\blacksquare$	9	χ. Ω		İ		emp	Son				(9	PHdiesel/TPHmotor oil/kerosene(80	11										shed	]			
¥	CO.C.			HEMAHKS:				ler T	ople					TEX/TPHgas (602/8020/8015)/MTBI	l8										ndni				
, <b></b>	0.2	2	į	Į.				Coc	San	님				TEX (602/8020)503.1	18										Rel				
L. J														rher:	10	<u> </u>													
[1]												Matrix		<u></u>	iΑ	_										1			
	3947	747									8	)			Ë	Ĭ		ps y	4-	+		_	_				>		:
. 1	Phone: (916) 362-8947	FAX: (916) 302-0947						0					$\perp$	ater	·M	_													
	916)	910)						628t			Preservative	0	ــاء	:pet:	+										1				
	one: (	XX.						$\sim$			serv	Used			$\leftarrow$											2			
	Ę.	֡֡֡֡֡֡֡֡֡֡֡֡֡֡֡֡֡						7 1,			Pre		╀	CI/HNO3/CE		1-	-								汐				
	•	1	Phone:	FAX	ess:		#		P.O.#:				L	her: plantic bell	$-\mathbf{P}$				_		_			M	1	I.			
1		١	Ĕ		Addr		Project/.lob#:		σ.			iner		0 mL Plastic		-	-		_		_	<u> </u>	$\sqcup$	_	Received by				
cs		I			ne &		P	-				Container		amber bottle	-	-	-				_			-	<u> </u>	+			
M					Billing Name & Address:							Ö	ة [ت	eveel8 sas		+	-					_		_	}	١.			
17,	` !	17	-		Billin						<u> </u>		_	AOV Jm		ļ.	-				1			<del>                                     </del>	1	, L			
<b>0</b> 6		1 958	2									ng	<u></u>		Time	3									/	] :			
75		) (၁	Losp									Sampling	ᇍ			+-	-			_	-	_	-	<del> </del>	$\frac{1}{2}$				
CHNULUGY, INC.	tor	men	7									Sa	ကို	646)	Cat Cat	9	>2								] }				
[ 5	Analytical Laboratory	3050 Fite Circle, #112 Sacramento, CA 95827	1												مار	<u>ئ ا</u> د	66								<b>]</b>				
- AF	_ab	112	_												SAMPLEID	C1-7-110	811-0.66								州	1-			
SPARGER	al	rcle, #		ager:	ess:		ا	<u>i</u>	tion:					·	AMP	0 0	-1	1 1							Relinquished by	1			
Z	ytic	ite Ci	Company:	Project Manager	Report Address:		Project Name	ğ	Project Location:						z	50 V	2007	The state of the s	}						1 P	*			
4		7	C)	ابد	₩.		1 7	3	ಕ		$\vdash$				٠ و	+	$\overline{}$	+		<del></del>		<del>                                     </del>	1	9	1Ĕ				



July 1, 1999

Invoice #:

11218A

Project Name: Caltrans Rte. 12

Project #:

782983

Mr. Dave Smith IT Corporation 11315 Sunrise Gold Circle Ste. A Rancho Cordova, CA 95742

Mr. Dave Smith,

Enclosed are the analytical results for our invoice #11218A. The samples were received at Sparger Technology Analytical Lab on June 18, 1999.

The samples were received in EPA specified containers. The samples were transported and received under documented chain of custody and stored at four (4) degrees C until analysis was performed.

The report consists of the following sections:

- Sample Description & Analysis Request 1.
- **Quality Control Report** 11.
- Analysis Results III.

No problems were encountered with the analysis of your samples.

If you require additional information please give us a call at (916) 362-8947.

Sincerely,

R. L. James

Laboratory Director



## Sample Description & Analysis Request

Laborato	ry ID	Matrix	Date Sampled	Sample ID	Date Received	Analysis Description
11218A	001	S	6/18/99	12B2 - 0.3	6/18/99	6010
11218A	002	S	6/18/99	12B10 - 0.15	6/18/99	6010
11218A	003	S	6/18/99	12B11 - 0.3	6/18/99	6010
11218A	004	S	6/18/99	12B13 - 0:15	6/18/99	6010
11218A	005	S	6/18/99	12B13 - 0.3	6/18/99	6010
11218A	006	S	6/18/99	12B14 0.15	6/18/99	6010
11218A	007	S.	6/18/99	12B15 - 0.3	6/18/99	6010
11218A	800	S	6/18/99	12B16-03	6/18/99	6010
11218A	009	S	6/18/99	12B18 - 0,3	6/18/99	6010
11218A	010	S	6/18/99	12B18 - 0.6	6/18/99	6010
11218A	011	S.	6/18/99	12B21 - 0.3	6/18/99	6010
11218A	. 012	. S	6/18/99	12B22 - 0.15	6/18/99	6010
11218A	013	S	6/18/99	12B24 - 0.15	## 6/18/99	6010
11218A	014	S.	6/18/99	12B25 = 0.6	6/18/99	6010
11218A	015	S	6/18/99	12B27 = 0.15±	6/18/99	6010
11218A	016	S	6/18/99	12B17 - 0.16	6/18/99	6010
11218A	017	S	6/18/99	12B18 - 0.15	6/18/99	6010
11218A	- 018	S	6/18/99	12819 - 0.6	6/18/99	6010
11218A	019	S	6/18/99	12B21 0.15	6/18/99	6010
11218A	020	S	6/18/99	12826 - 0.6	6/18/99	6010
11218A	021	S	6/21/99	505B1 - 0.15	6/21/99	6010
11218A	022.	S.	6/21/99	505B2 - 0.15	6/21/99	6010
11218A	023	S	6/21/99	505B3 + 0.15	6/21/99	6010
11218A	024	S	6/21/99	505B7 - 0.15	6/21/99	6010
11218A	025.	S	6/21/99	505B80:15	6/21/99	6010



# EPA Method 6010 Metals, Lead (TCLP) Method Blank

Attention: Mr. Dave Smith

IT Corporation

11315 Sunrise Gold Circle Ste. A

Rancho Cordova, CA 95742

Date Sampled:

Jun 18, 1999

Date Received:

Jun 18, 1999

Date Analyzed:

Jun 29, 1999

Invoice #:

11218AJUN99

Project #: 7

782983

Project Name:

CalTrans Rte. 12

Client ID:

Method Blank

LAB ID:

990628A

Matrix:

Leachate

Reporting

Units

Name

Concentration

Limit

Lead (Pb)

ND

0.050

mg/L

ppm= parts per million = mg/l = milligram per liter

ND = Not Detected. Compound(s) may be present at concentrations below the detection limit.

F McKinney Inorganics Manager

Jun 29, 1999

Date Reported



## EPA Method 6010 Metals, Lead (TCLP) LCS / LCSD Recoveries

Attention:

Mr. Dave Smith

Date Sampled:

Jun 18, 1999

IT Corporation

Date Received:

Jun 18, 1999

11315 Sunrise Gold Circle Ste. A

Date Analyzed:

Jun 29, 1999

Rancho Cordova, CA 95742

Invoice #:

11218AJUN99

Project #:

782983

Project Name:

CalTrans Rte. 12

Client ID:

LCS/LCSD

LAB ID:

990628A

Matrix:

Leachate

Units: (mg/L)

						110 t (11191 —)
	Spike		LCS %		LCSD %	%
Element	Conc.	LCS	Recovery	LCSD	Recovery	RPD
				:		
Lead (Pb)	2.50	2.71	108%	2.62	105%	3.4%
			*			•

ppm= parts per million = mg/l = milligram per liter

ND = Not Detected. Compound(s) may be present at concentrations below the detection limit.

NR = Not Requested

E.M. G.19 ty

E. McKinney, Inorganics Manager

Jun 29, 1999 Date Reported



# **EPA Method 6010** Metals, Lead (TCLP) **MS / MSD Recoveries**

Attention:

Mr. Dave Smith

**IT** Corporation

11315 Sunrise Gold Circle Ste. A

Rancho Cordova, CA 95742

Date Sampled: Jun 18, 1999

Date Received: Jun 18, 1999

Date Analyzed: Jun 29, 1999

Invoice #:

11218AJUN99

Project #:

782983

Project Name: CalTrans Rte. 12

Client ID:

MS/MSD

LAB ID:

11218-009A

Matrix:

Leachate

Units: (ma/L)

						· · · · · · · · · · · · · · · · · · ·	311 <u>163. (111972)</u>
	Sample	Spike		MS %		MSD %	%
Element	Conc.	Conc.	MS	Recovery	MSD	Recovery	RPD
Lead (Pb)	ND	2.50	2.62	105%	2.61	104%	0.4%
Lead (Pb)	ND	2.00	2.02			•	•

ppm= parts per million = mg/l = milligram per liter

ND = Not Detected. Compound(s) may be present at concentrations below the detection limit.

Note: If sample concentration is higher than spike concentration, recoveries may be either high or low.

Note: If sample concentration is lower than spike concentration, recoveries may be either high or low due to matrix interference.

Jun 29, 1999

Date Reported



## **EPA Method 6010** Metals, Lead (TCLP)

Attention:

Mr. Dave Smith

IT Corporation

11315 Sunrise Gold Circle Ste. A

Rancho Cordova, CA 95742

Project #:

782983

Date Sampled:

Jun 18, 1999

Date Received:

Jun 18, 1999

Date Analyzed:

Jun 29, 1999

Invoice #:

11218AJUN99

Project Name:

CalTrans Rte. 12

Matrix:

Leachate

Watik.				Reporting	
Analyte	Client ID	LAB ID	Concentration	Limit	Units
Lead (Pb)	11218A-016A	12B17 - 0.6	ND	0.050	mg/L
Lead (Pb)	11218A-017A	12B18 - 0.15	0.17	0.050	mg/L
Lead (Pb)	11218A-018A	12B19 - 0.6	0.075	0.050	m <b>g/L</b>
Lead (Pb)	11218A-019A	12B21 - 0.15	0.20	0.050	mg/L
Lead (Pb)	11218A-020A	12B26 - 0.6	0.065	0.050	mg/L
Lead (Pb)	11218A-021A*	505B1 - 0.15	2.2	0.050	m <b>g/L</b>
Lead (Pb)	11218A-022A*	505B2 - 0.15	0.77	0.050	m <b>g/L</b>
Lead (Pb)	11218A-023A*	505B <b>3 - 0.15</b>	1.3	0.050	mg/L
,				The second second second	

ppm= parts per million = mg/l = milligram per liter

ND = Not Detected. Compound(s) may be present at concentrations below the detection limit.

Jun 29, 1999 Date Reported

<sup>\*</sup> Sampled on 6/21/99 and received on 6/21/99.



## **EPA Method 6010 STLC Lead Method Blank**

Attention:

Mr. Dave Smith

IT Corporation

11315 Sunrise Gold Circle Ste. A

Rancho Cordova, CA 95742

Invoice#:

11218AJUN99 CalTrans Rte. 12

Jun 18, 1999

Jun 18, 1999

Jun 29, 1999

Project #:

782983

Project Name:

Date Sampled:

Date Received:

Date Analyzed:

Client ID:

Method Blank

LAB ID:

990628B

Matrix:

Leachate

Dilution:

1: 1

Reporting

Analyte	 Concentration	Limit	Units
Lead (Pb)	ND	0.10	mg/L

ppm= parts per million = mg/l = milligram per liter

ND = Not Detected. Compound(s) may be present at concentrations below the detection limit.

Jun 29, 1999

Date Reported



## **EPA Method 6010 STLC Lead** LCS / LCSD Recoveries

Attention:

Mr. Dave Smith

**IT Corporation** 

11315 Sunrise Gold Circle Ste. A

Rancho Cordova, CA 95742

Jun 18, 1999 Date Sampled:

Date Received: Jun 18, 1999

Date Analyzed:

Jun 29, 1999

Invoice#:

11218AJUN99

Project #:

782983

Project Name:

CalTrans Rte. 12

Client ID:

LCS/LCSD

LAB ID:

990628B

Matrix:

Leachate

Dilution:

1: 1

					Un	its: (mg/L)
Element	Spike Conc.	LCS	% Recove <b>ry</b>	Duplicate LCS	Duplica <b>te</b> % Recove <b>ry</b>	% RPD
Lead (Pb)	2.50	2.56	102%	2.43	97.2%	5.2%

ppm= parts per million = mg/l = milligram per liter

ND = Not Detected. Compound(s) may be present at concentrations below the detection limit.

E. McKinney, Inorganics Manager

Jun 29, 1999

Unita · /ma/L)

Date Reported



## **EPA Method 6010 STLC Lead** MS/MSD Recoveries

Attention:

Mr. Dave Smith

**IT** Corporation

11315 Sunrise Gold Circle Ste. A

Rancho Cordova, CA 95742

Date Sampled: Jun 18, 1999

Date Received: Jun 18, 1999

Date Analyzed: Jun 29, 1999

Invoice#:

11218AJUN99

Project #:

782983

Project Name: CalTrans Rte. 12

Client ID:

MS/MSD

LAB ID:

11218-001A

Matrix:

Leachate

Dilution:

1:

Units: (mg/L)

							<u> </u>
Element	Sample Conc.	Spike Conc.	MS	% Recovery	Duplicate MS <b>D</b>	Duplicate % Recovery	% RPD
Lead (Pb)	3.48	2.50	6.23	110%	6.27	112%	1.4%

ppm= parts per million = mg/l = milligram per liter

ND = Not Detected. Compound(s) may be present at concentrations below the detection limit.

Note: If sample concentration is higher than spike concentration, recoveries may be either high or low.

Note: If sample concentration is lower than spike concentration, recoveries may be either high or low due to matrix interf

Jun 29, 1999

Date Reported



## EPA Method 6010 STLC Lead

Attention:

Mr. Dave Smith

**IT** Corporation

11315 Sunrise Gold Circle Ste. A

Rancho Cordova, CA 95742

Date Sampled:

Jun 18, 1999

Date Received:

Jun 18, 1999

Date Analyzed:

Jun 29, 1999

Invoice#:

11218AJUN99

Project #:

782983

Project Name:

CalTrans Rte. 12

Matrix:

Leachate

Dilution:

1:

				Reporting	
Analy <b>te</b>	LAB ID	Client ID	Concentration	Limit	Units
			0.5	0.050	ma/l
Lead (Pb)	11218A-001A	12B2 - 0.3	3.5	0.050	mg/L
Lead (Pb)	11218A-002A	12B10 - 0.15	2.5	0.050	mg/L
Lead (Pb)	11218A-003A	12B11 - 0.3	2.9	0.050	mg/L
Lead (Pb)	11218A-004A	12B13 - 0.15	1.5	0.050	mg/L
Lead (Pb)	11218A-005 <b>A</b>	12B13 - 0.3	2.2	0.050	mg/L
Lead (Pb)	11218A-006 <b>A</b>	12B14 - 0.15	2.7	0.050	mg/L
Lead (Pb)	11218A-007A	12B15 - 0.3	2.2	0.050	mg/ <b>L</b>
Lead (Pb)	11218A-008A	12B16 - 0.3	1.4	0.050	mg/L
Lead (Pb)	11218A-009A	12B18 - 0.3	1.1	0.050	mg/L
Lead (Pb)	11218A-010A	12B18 - 0.6	0.52	0.050	mg/L

ppm= parts per million = mg/l = milligram per liter

ND = Not Detected. Compound(s) may be present at concentrations below the detection limit.

E. McKinney, Inorganics Manager

Jun 29, 1999

Date Reported



## **EPA Method 6010 STLC Lead**

Attention:

Mr. Dave Smith

**IT** Corporation

11315 Sunrise Gold Circle Ste. A

Rancho Cordova, CA 95742

Date Sampled:

Date Received:

Date Analyzed:

Invoice#:

Jun 18, 1999 Jun 29, 1999

Jun 18, 1999

11218AJUN99

Project #:

782983

Project Name:

CalTrans Rte. 12

Matrix:

Leachate

Dilution:

1:

				Reporting	
Analyte	LAB ID	Client ID	Concentration	Limit	Units
Lead (Pb)	11218A-011A	12B21 - 0.6	1.5	0.050	mg/L
Lead (Pb)	11218A-012A	12B22 - 0.15	1.8	0.050	mg/L
Lead (Pb)	11218A-013A	12B24 - 0.15	2.9	0.050	mg/L
Lead (Pb)	11218A-014A	12B25 - 0.6	2.1	0.050	mg/L
Lead (Pb)	11218A-015A	12B27 - 0.15	8.9	0.050	mg/L
Lead (Pb)	11218A-02 <b>4A*</b>	505B7 - 0.15	1.0	0.050	mg/L
Lead (Pb)	11218A-025 <b>A*</b>	505B8 - 0.15	3.5	0.050	mg/L
•					

ppm= parts per million = mg/l = milligram per liter

ND = Not Detected. Compound(s) may be present at concentrations below the detection limit.

\* Sampled on 6/21/99 and received on 6/21/99

Jun 29, 1999 Date Reported

06/25/99 FRI 10:05 FAX 916 858 0605

#### TABLE PRAFT

#### **INORGANIC RESULTS - SOIL**

Caltrans - Route 12 and Route 505 Investigations



	Boring	Sample	Sample		Lead		9045
Route	Numbér	Depth (m)	Depth (ft)	Total	WET	TCLP	рН
12	B-1	0.15		6.9			
		0.3		6,4			6.4
	1	0.6		4.0	***************************************		
		0.9	***************************************	5.0	211110111011111111111111111111111111111		
	B-2	0.15		10			***************************************
ĺ		0.3	D1444240014444177174174174444	56	Х	1	
1	B-3	0.15		6.7			
		0.3		4.9			
		0.6	3323#153##151bei#160;	9.1			
!		0.9	4144444444444	5.2		1071010317171717171717171717171717171717	
	B-4	0.15		29			
	B-5	0.15		12			
	"	0.3	2=1503451010mJnJ/n>meta	11			
1		0.6	***************************************	7.4			
	}	0.9	\$14140031414414161Fmtu	6.5			
	B-6	0.15		3.0			
		0.3		4.1			
	I	0.9		5.0	***************************************		
ļ	B-7	0.15		5.6			
l,	] ",	0.3 0.6	D16151601561515615115115115150161611	6.9 3.6	***************************************		
1	1	0.6	.01.010.04.4.4.4.4.4.4.4.1.010.00.00.10.14.4	3.6			
		0.9	***************************************	4.1	. *************************************		
	B-8	0.15		3.6			
		0.3		3.2			1
	·	0.6		4.8			
		0.9		1.4			
	B-9	0.15		4.8			
j		0.3		15			6.4
		0.6	***************************************	25		*** 032704 P400444444000 440004 53770414	
Ī		0,9		30		20417878488888889898989888	***************************************
. }	B-12	0.15		5.5			
		0.3		<b>62</b>	×		
		0.6		47			
		0.6		11	** ************************************		 
!	B-11	0.15		7.4			
	B-11	0.3		16		2101	***************************************
				85	X	*** ***********************************	114121111111111111111111111111111111111
ļ		0.6		9.5		141 507503000000000000000000000000000000000	
	B-12	0.15	<del> </del>	8.0			
	B-12	V 3		11			
İ		n <u>a</u>		9,5			
		0.0 0.0		8.1			· · · · · · · · · · · · · · · · · · ·
		0.9 0.15		63	<del>                                     </del>		+
}	B-13	0.15 0.3 0.6		86	<del></del>		***************************************
		U.3		66 62 12	X	***************************************	
İ		0.9	*************************	12			
j		0.9		1 12	<u></u>		

IT Corporation 6/25/99

12-505.xls Inorganics (Soll)

**2**003

#### **TABLE** DRAFT

#### **INORGANIC RESULTS - SOIL**

Caltrans - Route 12 and Route 505 Investigations

	Boring	Sample	Sample		Lead		9045
Route	Number	Depth (m)	Depth (ft)	Total	WET	TCLP	pН
12	B-14	0.15		7.4			
Continued		0.3	***************************************	88	X		
		0.6	Ī	88 22 7.8		5   5   5 - 5 A	mm1414101M141V1111V11M1
		0.9		7.8			
	B-15	0.15		6.8		*************	
		0,3		26		# 4 9 4 3 D # F # 12 9 F F F F F F F F F F F F F F F F F F	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
		0.6		<b>71</b>	X	averse 6484 224 04 04 24 40 28 28 40 44 140 5	
l		0.9		16			
	B-16	0.15 0.3	19181141933900 51101111232112321144	6.8		### \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	******************************
				20		2020-2121012400004141012550125012	************************
Ÿ		0.6	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	62	X	*************	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
		0.9		24			6.6
	B-17	0.15	174124222222222222222222222222222222222	5.5 47		601 d 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6.5
	l ·	0.3	was 10.000 (0.001)   1.000 (0.001 (0.	34			
		0.6		140		X	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	B-18			19	<b>-</b>	<del> ^-</del>	
	D-10	0.15 0.3	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	112		X	
		0.6		63	X		
		0.9	***************************************	89	X	·	***************************************
	B-19	0.15		12	<del>                                     </del>		
1		0.3		26		***************************************	
]	İ	0.6		30		***************************************	
		0.9	1,11111111	197		X	
	B-20	0.15		27			
		0.3		31			
! ;		0.6		8.6			
		0.9		6.7			
	B-21	0.15		5.9			
		0.3	P1141P1203E49811101111L1011L31B1L1	150		X	
		0.6	1141317418114131111111111111111111111111	97	X		***************************************
		0.9		11	<b> </b>		
İ	B-22	0.15		7. <b>1</b>		**************************	
	Ì	0.3		52	XX		
ļ		0.6		32			
į		0.9	<del></del>	13 7.6			<del> </del>
	B-23	0.15		24			
		0.3		14	415 (425)20(53(43)4141)41)444444	16b 15b 160 160 160 160 160 160 160 160 160 160	
		0.9		13	412	*** ***********************************	
	B-24	0.15	<del> </del>	9.4			T
	U-2-7	0.3	.,	54	X	***************************************	***************************************
	1	0.6		16			
		0.9		10	·	***************************************	
2	B-25	0.15	<del> </del>	22			
İ		0.3		36			***************************************
	1 .	0.6		37		****	
	1	0.9		51	5 (C. 6 <b>X</b> ( ))	1	

IT Corporation 6/25/99





#### INORGANIC RESULTS - SOIL

	Boring	Sample	Sample		L <b>ead</b>		9045
Route	Number	Depth (m)	Depth (ft)	Total	WET	TCLP	pH
12	B-26	0.15		15			
Continued				6.4 5.6			
:		0.3	M 1 502 10 1 10 1 10 1 10 1 10 1 10 1 10	5.6		***************************************	######################################
	0.9	747-127072673673673673673673573573	105		Χ		
	B-27	0.15		27			
		0.3		81 16 21	X		724 1444 0451611 444551245484848
		0.6		16			110141019334111110131101311
		0.9		21			
	B-28	0.15		25			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
ļ		0.3		30 20			.08.08.10.25.118.18.11.19.105.10.114.14.15.
		0.6		20		********************************	6.6
•		0.9		30			
505	8-1	0.15		510		X	
. =		0.3	-1	51 <b>0</b> 6.9	*******************************	***************************************	 
		0.66		11			
<b>\</b>	B-2	0.15		133		X	) }   1   1   1   1   1   1   1   1   1
		0.3		5,5	******************		6.5
		0.66		7.0			
	B-3	0.15		<b>255</b>		X	
ļ		0.3		5.8	(*************************************	(41	4001-1-343541-1-161541-161
		0.68		7.3			
	B-4	0.15		12			***************************************
1		0.3		6.6			
}		0.66		6.2			<u> </u>
5	B-5	0.15		21			
		0.3		9.4			
-		0.66	\$971-017-0-000 P10-010-00-00-00-00-00-00-00-00-00-00-00-	9.7			
	B-6	0.15		17		1300514123052310050111550330403	
. [		0.3		5.9			
		0.66		7.4			6.6
!	B-7	0.15		56	X		
		0.15 0.3	***************************************	10			
	1	0.66		11	<u> </u>	<u>.</u>	
	B-6	0.15		68	X		
Í		0.3	***************************************	15		PI AIRIASAAMININIMBININININININ	6.7
	1	0.66	771717171871871871871871871871871	10			
1	B-9	0.15		7.0			
	1	0.15 0.3		7.0 16 11	1144151101010101010101010101010101010101	*** ************************	
		0.66		11			
	B-10	0.15		7.9			
		0.3	<u> </u>	5.8			
		0.66		6.3		<u> </u>	
	B-11	0.15		7.6			6.6
	1	0.3	4.1507-0741100407111111111111111111111111111	6.7			
	1	0.66	***************************************	4,4			}

FRI 10:06 FAX 916 858 0605

#### TABLE DRAFT

#### INORGANIC RESULTS - SOIL

Caltrans - Route 12 and Route 505 Investigations



	Boring	Sample	Sample		Lead		9045
Route	Number	Depth (m)	Depth (ft)	Total	WET	TCLP	pН
TTLC	·			1000			
10X STLC				50			
STLC					5		
TCLP						5	<u> </u>
PRG				130			·
				1			NA
Reporting Limit					<u></u>		

#### Notes:

- 1. TTLC = total threshold limit concentration. STLC = soluble threshold limit concentration. WET = waste extraction test. TCLP = toxicity characteristic leaching procedure.
- 2. Sample depths reported in approximate meters (m) / feet (ft) below the ground surface.
- WET conducted in general accordance with California Title 22 procedures. TCLP extraction and metals analyses conducted in general accordance with U.S. Environmental Protection Agency methods.
- 4. Total metal results reported in milligrams per kilogram. WET and TCLP results reported in milligrams per liter.
- 5. ND = not detected in concentrations exceeding the listed reporting limit.
- 6. Soil samples labeled as follows: route and boring no.-depth. Ex.: 12B1-0.3 Route 12, boring B-1, 0.3-meter depth.
- 7. 10X STLC = 10 times the Soluble Threshold Limit Concentration. Values listed in milligrams per liter.
- 8. PRG = preliminary remediation goal (1998) for residential soil in mg/kg.
- 9. For total lead results, bold results equal or exceed 10X STLC values. Bold and italics results equal or exceed the TTLC.
- 10. For WET and TCLP results, bold results exceed the STLC or TCLP.







## FACSIMILE COVER SHEET

To:	From: Non-Source Sure Sure Sure Sure Sure Sure Sure Sur
Number of Pages (Include	ling Cover Sheet)
	<del></del>
Comments: 1 1 1 1 1 2	lb results
- veue reg	cested WET and TCLP
and yes o	The surples indicated
•	har Nsh





# FACSIMILE COVER SHEET

$\mathcal{C} \sim$	From: Son Drans-tord
To: ENC	From
Company: Sperger	IT CORPORATION 11315 Sunrise Gold Circle, Suite A
Fax Number:	Rancho Cordova, CA 95742
Date Sent: $\frac{86/25}{6}$	Telephone: (916) 858-2350 FAX: (916) 858-2355
Number of P	ages (Including Cover Sheet)
	<u> </u>
	I I I STOLL
Comments: 6	No The WET - ICLD
ana	Las indicated on the enclosed
Labl	
	> 48 hr T/A

#### **INORGANIC RESULTS - SOIL**

	Boring	Sample	Sample		Lead		9045
Route	Number	Depth (m)	Depth (ft)	Total	WET	TCLP	рН
12	B-1	0.15		8.9			
12	] .	0.3		6.4		***************************************	6.4
	1	0.6		4.0	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	***************************************	100001000100100111111111111111111111111
	•	0.9		5.0			***************************************
	B-2	0.15		10			
•	D-2	0.3		56	X	***************************************	
	B-3	0.15		6.7			
* * * * * * * * * * * * * * * * * * *	5-5	0.3		4.9			••••••••••••••••••••••••••••••••••••••
		0.6		9.1	***************************************		h-11021001P001000-11000
		0.6 0.9		5.2	***************************************		***************************************
	B-4	0.15		29			
•	B-5	0.15		12			
	D-0			11	***************************************		
		0.3		11 7.4	***************************************		
•		0.6 0.9		6.5			
	- B.6						
,	B-6	0.15		3.0 4.1	***************************************		***************************************
		0.3		4.1 5.0	***************************************		
		0.9					
*	B-7	0.15		5.6			
		0.3		6.9 3.6			
<b>.</b>		0.6 0.9		4.1		***************************************	
1							
	B-8	0.15		3.6 3.2			
		0.3		4.8			
		0.9		1.4			<u> </u>
	B-9	0.15		4.8			6.4
		0.3		15 25			U.T
		0.6		∠5 30			
		0.9				<u> </u>	
	B-10	0.15		5.5			
		0.3		82	X		
		0.6		47			
		0.9		11			
	B-11	0.15		7.4			
	1.	0.3		16			
	1	0.6	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	85	<u> </u>		
		0.9		9.5	<u> </u>	<u> </u>	
	B-12	0.15 0.3		8.0			
		0.3		11			
	1	0.6		9.5			
N.		0.9		8.1	·		<del> </del>
1	B-13	0.15		6.3			
		0.15 0.3		66	X		
		0.6		<b>62</b> 12	X		
		0.9		12			

#### **INORGANIC RESULTS - SOIL**

	Borin <b>g</b>	Sample	Sampl <b>e</b>		Lead		9045
Route	Number	Depth (m)	Depth (ft)	Total	WET	TCLP	pH
12	B-14	0.15		7.4			
	D- 1-4	0.3		88	X		
Continued		0.6		22			***************************************
	•	0.9		7.8	*****************************		
	5.45			6.8			
	B-15	0.15		26	***************************************		
		0.3		71	X		
. ,		0.6		16			***************************************
·		0.9		6.8			
	B-16	0.15		20			**********************
		0.3		20	Υ		***************************************
		0.6		62	XX		***************************************
		0.9		24	<u> </u>		6.5
	B-17	0.15		5.5			
		0.3		47			
		0.6		34		X	
*.		0.9		140		<del>  ^  </del>	
	B-18	0.15 0.3		19			
		0.3		112		X	
		I 0.6		63	X		
	· · · · · · · · · · · · · · · · · · ·	0.9		89	X		·
	B-19	0.15		12 26			
		0.3		26			
		0.6		30			
	ļ ·	0.9	·	197		X	
	B-20	0.15		27			
		0.3		31			***************************************
		0.6		8.6			
	ļ	0.9		6.7			
	B-21	0.15		5.9			
		0.3		150		X	***************************************
		0.6		97	Х		
		0.9		11			
	B-22	0.15		7.1			
	D-22	0.3		52	X		
	ļ	0.6		32	•••••••••••		
		0.9		13	••••••••••		
	B-23	0.15		7.6			
	6-23	0.13		24			
				14			
		0.6 0.9		13			
·	D 04	0.9		9.4			
	B-24			54	×		
		0.3		16			
		0.6					
		0.9		10			<u> </u>
	B-25	0.15		22			
		0.3		36 37			
e e	1	0.6		37			
		0.9	1	51	X	<u> </u>	<u> </u>

#### **INORGANIC RESULTS - SOIL**

	Boring	Sample	Sample		Lead		9045
Route	Number	Depth (m)	Depth (ft)	Total	WET	TCLP	pН
12	B-26	0.15		15			
Continued		0.3		8.4			
		0.6	***************************************	5.6	••••		
		0.9		105		X	
	B-27	0.15		27			
		0.3		81	Χ		
		0.6		16			
		0.9		21			
	B-28	0.15		25			
		0.3		30 I			
		l 0.6	İ	20	***************************************		6. <b>6</b>
•		0.9		30			
505	B-1	0.15		510		X	
		0.3		6.9			***************************************
ļ	•	0.66		11	***************************************		
ŀ	B-2	0.15		133		X	
	5 <b>2</b> .	0.3		5.5			6.5
		0.66		7.0			
	B-3	0.15		255		X	
·	D-0	0.3		5.8			
	-	0.66		7.3			
	B-4	0.15		12			
	D- <del>-4</del>	0.3		6.6		• • • • • • • • • • • • • • • • • • • •	
		0.66		6.2			
	B-5	0.15		21			-
	5-0	0.3		9.4			
		0.66		9.7	***************************************		
	B-6	0.15		17		-	
	. D-0	0.3		5.9			
		0.66		7.4			6.6
	D 7	0.15		56	X		
	B-7	0.13		10		-	
		0.66	<b></b>	11			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	B-8			68	X	<u> </u>	
	5-6	0.15		15	<u> </u>		6.7
		0.66		10			
	- B -	0.00	-	7.0		<b> </b>	
	B-9	0.15 0.3 0.66		16			
		0.3		11			
	P.40	0.00		7.9	<u> </u>		
	B-10	0.15		5.8			
		0.3		6.3			
		0.66	<del> </del>	7.6			6.6
	B-11	0.15		. 4			
	1	0.3		6.7			
	<u>L_</u>	0.6 <b>6</b>		4.4	<u> </u>		

#### **INORGANIC RESULTS - SOIL**

Caltrans - Route 12 and Route 505 Investigations

	Boring	Sample	Sample		Lead		9045
Route	Number	Depth (m)	Depth (ft)	Total	WET	TCLP	pH
TTLC				1000			<u> </u>
10X STLC				50			
STLC					5		
TCLP					·	5	· · · · · · · · · · · · · · · · · · ·
PRG				130			
Reporting Limit				1			NA

#### Notes:

- 1. TTLC = total threshold limit concentration. STLC = soluble threshold limit concentration. WET = waste extraction test. TCLP = toxicity characteristic leaching procedure.
- 2. Sample depths reported in approximate meters (m) / feet (ft) below the ground surface.
- 3. WET conducted in general accordance with California Title 22 procedures. TCLP extraction and metals analyses conducted in general accordance with U.S. Environmental Protection Agency methods.
- 4. Total metal results reported in milligrams per kilogram. WET and TCLP results reported in milligrams per liter.
- 5. ND = not detected in concentrations exceeding the listed reporting limit.
- 6. Soil samples labeled as follows: route and boring no.-depth. Ex.: 12B1-0.3 Route 12, boring B-1, 0.3-meter depth.
- 7. 10X STLC = 10 times the Soluble Threshold Limit Concentration.
  Values listed in milligrams per liter.
- 8. PRG = preliminary remediation goal (1998) for residential soil in mg/kg.
- 9. For total lead results, bold results equal or exceed 10X STLC values. Bold and italics results equal or exceed the TTLC.
- 10. For WET and TCLP results, bold results exceed the STLC or TCLP.



July 27, 1999

Invoice #:

11218B

Project Name: Caltrans Rte. 12

Project #:

782983

Mr. Dave Smith **IT** Corporation 11315 Sunrise Gold Circle Ste. A Rancho Cordova, CA 95742

Mr. Dave Smith,

Enclosed are the analytical results for our invoice #11218B. The samples were received at Sparger Technology Analytical Lab on June 18, 1999.

The samples were received in EPA specified containers. The samples were transported and received under documented chain of custody and stored at four (4) degrees C until analysis was performed.

The report consists of the following sections:

- Sample Description & Analysis Request ١.
- Quality Control Report 11.
- Analysis Results III.

No problems were encountered with the analysis of your samples.

If you require additional information please give us a call at (916) 362-8947.

Sincerely,

R. L. James

**Laboratory Director** 



#### Sample Description & Analysis Request

Laborato	Laboratory ID Matrix		Date Sampled	Sample ID	Date Received	Analysis Description
ZZOZIOD.	0.01	S	6/18/99	K20047 6 6	6/18/99	6010
11218B				12B17 - 0.6		6010
11218B	002	8	6/18/99	12B18 - 0.15	6/18/99	
11218B	003	S	6/18/99	12B19 0.6	6/18/99	6010
11218B	004	S	6/18/99	12B21 - 0.15	6/18/99	6010
11218B	0.05	S	6/18/99	12B26 - 0.6	6/18/99	6010
11218B	006	S	6/21/99	505B1 0:15	6/21/99	6010
11218B	- 007-	S	6/21/99	505B2 - 0.15	6/21/99	6010
11218B	008	S	- 6/21/99	505B3 = 0.15	6/21/99	6010



#### II Quality Control

- A. <u>Project Specific QC</u>. No project specific QC (i.e., spikes and/or duplicates) was requested.
- B. <u>Method Blank Results</u>. A method blank is a laboratory-generated sample which assesses the degree to which laboratory operations and procedures cause false-positive analytical results for your sample.

No target parameters were detected in the method blank associated with your sample at the reporting limit levels noted on the data sheets in the Analytical Results section.

- C. <u>Laboratory Control Spike</u>. A Laboratory Control Spike (LCS) is a sample which is spiked with known analyte concentrations, and analyzed at approximately 10% of the sample load in order to establish method-specific control limits. The LCS results associated with your samples are on the attached Laboratory Control Spike and Laboratory Control Spike Duplicate Analysis Report.
- D. Matrix Spike Results. A Matrix Spike is a sample which is spiked with known analyte concentrations, and analyzed at approximately 10% of the sample load in order to establish method-specific control limits. The Matrix Spike results associated with your samples are on the attached Matrix Spike and Matrix Spike Duplicate Analysis Report.

Accuracy is measured by Percent Recovery as in:

% recovery = (measured concentration) x 100 (actual concentration)

#### III Analysis Results

Results are on the attached data sheets.



## **EPA Method 6010 STLC Lead Method Blank**

Attention:

Mr. Dave Smith

IT Corporation

11315 Sunrise Gold Cir., Ste. A

Rancho Cordova, CA 95742

Date Sampled:

Jun 18, 1999

Jun 18, 1999 Date Received:

Date Digested:

Jul 22, 1999

Date Analyzed:

Jul 22, 1999

Invoice#:

11218BJUN99

Project #:

782983

Project Name:

CalTrans Rte. 12

Client ID:

Method Blank

LAB ID:

990722D

Matrix:

Leachate

Dilution:

1: 1

Analy <b>te</b>	•	Concentration	Reportin <b>g</b> Limit	Units
Lead (Pb)		ND	0.050	mg/L
, ,				

ppm= parts per million = mg/l = milligram per liter

ND = Not Detected. Compound(s) may be present at concentrations below the detection limit.

E. McKinney, Inorganics Manager

Jul 22, 1999

Date Reported



## EPA Method 6010 STLC Lead LCS / LCSD Recoveries

Attention:

Mr. Dave Smith

IT Corporation

11315 Sunrise Gold Cir., Ste. A

Rancho Cordova, CA 95742

Date Sampled:

d: Jun 18, 1999

Date Received: Jun 18, 1999

Date Digested:

Jul 22, 1999

Date Analyzed:

Jul 22, 1999

Invoice#:

11218BJUN99

Project #:

782983

Project Name:

CalTrans Rte. 12

Client ID:

LCS/LCSD

LAB ID:

990722D

Matrix:

Leachate

Dilution:

1: '

* •						Units : (mg/L)
Element	Spike Conc.	LCS	% Recovery	Duplicate LCS	Duplicat <b>e</b> % Recovery	% RPD
Lead (Pb)	2.50	2.57	103%	2.56	102%	0.4%

ppm= parts per million = mg/l = milligram per liter

ND = Not Detected. Compound(s) may be present at concentrations below the detection limit.

E. McKinney, Inorganics Manager

Jul 22, 1999

Date Reported

SPARGER TECHNOLOGY ANALYTICAL LABORATORY, INC. IS CERTIFIED BY THE STATE OF CALIFORNIA
DEPARTMENT OF HEALTH SERVICES AS A HAZARDOUS WASTE TESTING LABORATORY
(Certification No. 1614)

**STLCPBLCS** 



## **EPA Method 6010** STLC Lead **MS/MSD Recoveries**

Attention:

Mr. Dave Smith

**IT Corporation** 

11315 Sunrise Gold Cir., Ste. A

Rancho Cordova, CA 95742

Date Sampled: Jun 18, 1999

Date Received: Jun 18, 1999

Date Digested: Jul 22, 1999

Date Analyzed: Jul 22, 1999

Invoice#:

11218BJUN99

Project #:

782983

Project Name:

CalTrans Rte. 12

Client ID:

MS/MSD

LAB ID:

11218B-001A

Matrix:

Leachate

Dilution:

1:

Units: (mg/L)

	Element	Sample Conc.	Spike Conc.	MS	% Recove <b>ry</b>	Duplicate MSD	Duplica <b>te</b> % Recove <b>ry</b>	% RPD
Lea	ıd (Pb)	1.54	2.50	3.67	85.2%	3.65	84.4%	0.9%

ppm= parts per million = mg/l = milligram per liter

ND = Not Detected. Compound(s) may be present at concentrations below the detection limit.

Note: If sample concentration is higher than spike concentration, recoveries may be either high or low.

Note: If sample concentration is lower than spike concentration, recoveries may be either high or low due to matrix inter

EMULO

Jul 22, 1999

**Date Reported** 

E. McKinney, Inorganics Manager



## **EPA Method 6010 STLC Lead**

Attention:

Mr. Dave Smith

**IT** Corporation

11315 Sunrise Gold Cir., Ste. A

Rancho Cordova, CA 95742

Project #:

782983

Client ID:

Matrix:

Leachate

Date Sampled:

Jun 18, 1999

Date Received: Date Digested:

Jun 18, 1999 Jul 22, 1999

Date Analyzed:

Jul 22, 1999

Invoice#:

11218BJUN99

Project Name:

CalTrans Rte. 12

LAB ID:

Dilution:

1: 1

Analyte	Lab ID	Client ID	Concentration	Reporting Limit	Units
Arialyte					
Lead (Pb)	11218B-001A	12B17 - 0.6	1.5	0.050	mg/L
Lead (Pb)	11218B-002A	12B18 - 0.15	7.1	0.050	mg/L
Lead (Pb)	11218B-003A	12B19 - 0.6	1.4	0.050	mg/L
Lead (Pb)	11218B-004A	12B21 - 0.15	4.6	0.050	mg/L
Lead (Pb)	11218B-005A	12B26 - 0.6	0.93	0.050	mg/L
Lead (Pb)	11218B-006A	505B1 - 0.15	24	0.050	mg/L
Lead (Pb)	11218B-007A	505B <b>2 - 0.15</b>	13	0.050	mg/L
Lead (Pb)	11218B-008A	505B3 - 0.15	18	0.050	mg/L

ppm= parts per million = mg/l = milligram per liter

ND = Not Detected. Compound(s) may be present at concentrations below the detection limit.

E. McKinney, Inorganics Manager

Jul 22, 1999

Date Reported







## FACSIMILE COVER SHEET

To Eric From: Dave Smith
Company: Sparger IT CORPORATION 11315 Sunrise Gold Circle, Suite A
Fax Number: Rancho Cordova, CA 95742 Telephone: (916) 858-2350
Date Sent: 7 19 9 FAX: (916) 858-2355
Number of Pages (Including Cover Sheet)
Need W.E.T. conducted on the folkwing:
Comments: Koule 12 B17-0.6
B18-0.15
B19-0.6
B21-0.15
B26-0.6°
Rouk 505 BI-0:15
B2-0.15
B3-0=188-HOUR
Sparger # 11218A - 48hr.

Thank Nave



August 3, 1999

Invoice #:

11218C

Project Name: CalTrans Rte. 12

Project #:

782983

Mr. Dave Smith IT Corporation 11315 Sunrise Gold Cir., Ste. A Rancho Cordova, CA 95742

Mr. Dave Smith,

Enclosed are the analytical results for our invoice #11218C. The samples were received at Sparger Technology Analytical Lab on June 18, 1999.

The samples were received in EPA specified containers. The samples were transported and received under documented chain of custody and stored at four (4) degrees C until analysis was performed.

The report consists of the following sections:

- Sample Description & Analysis Request 1.
- Quality Control Report 11.
- Analysis Results III.

No problems were encountered with the analysis of your samples.

If you require additional information please give us a call at (916) 362-8947.

Sincerely,

R. L. James

Laboratory Director



## Sample Description & Analysis Request

Laboratory ID	Matrix	Date Sampled	Sample ID	Date Received	Analysis Description
	Ls.	6/18/99	12B18 - 0.15	6/18/99	6010
11218C 001	0	6/21/99	505B1 = 0.15		6010
11218C 002 11218C 003	8		505B2 - 0.15		6010
11218C 004	S	6/21/99	505B3 - 0.15	6/21/99	6010

#### II Quality Control

- A. <u>Project Specific QC</u>. No project specific QC (i.e., spikes and/or duplicates) was requested.
- B. Method Blank Results. A method blank is a laboratory-generated sample which assesses the degree to which laboratory operations and procedures cause false-positive analytical results for your sample.

No target parameters were detected in the method blank associated with your sample at the reporting limit levels noted on the data sheets in the Analytical Results section.

- C. <u>Laboratory Control Spike</u>. A Laboratory Control Spike (LCS) is a sample which is spiked with known analyte concentrations, and analyzed at approximately 10% of the sample load in order to establish method-specific control limits. The LCS results associated with your samples are on the attached Laboratory Control Spike and Laboratory Control Spike Duplicate Analysis Report.
- Matrix Spike Results. A Matrix Spike is a sample which is spiked with known analyte concentrations, and analyzed at approximately 10% of the sample load in order to establish method-specific control limits. The Matrix Spike results associated with your samples are on the attached Matrix Spike and Matrix Spike Duplicate Analysis Report.

Accuracy is measured by Percent Recovery as in:

% recovery =  $(measured concentration) \times 100$  (actual concentration)

### III Analysis Results

Results are on the attached data sheets.



## EPA Method 6010 STLC (DI Water) Lead Method Blank

Attention:

Mr. Dave Smith

IT Corporation

11315 Sunrise Gold Circle Ste. A

Rancho Cordova, CA 95742

Date Sampled:

Jun 18, 1999

Date Received:

Jun 18, 1999

Date Analyzed:

Aug 2, 1999

Invoice#:

11218CJUL99

Project #:

782983

Project Name:

CatTrans Rte. 12

Client ID:

Method Blank

LAB ID:

990802A

Matrix:

Leachate

Dilution:

1: 1

			Reporting	
Analy <b>te</b>	Co	ncentration	Limit	Units
Lead (Pb)		ND	0.010	mg/L
			•	

ppm= parts per million = mg/l = milligram per liter

ND = Not Detected. Compound(s) may be present at concentrations below the detection limit.

E. McKinney, Inorganics Manager

Aug 2, 1999

Date Reporte



## **EPA Method 6010** STLC (DI Water) Lead LCS / LCSD Recoveries

Attention:

Mr. Dave Smith

**IT Corporation** 

11315 Sunrise Gold Circle Ste. A

Rancho Cordova, CA 95742

Jun 18, 1999 Date Sampled:

Date Received:

Jun 18, 1999

Date Analyzed: Aug 2, 1999

Invoice#:

11218CJUL99

Project #:

782983

Project Name:

CatTrans Rte. 12

Client ID:

LCS/LCSD

LAB ID:

990802A

Matrix:

Leachate

Dilution:

1: 1

Units: (ma/L)

			011160 1 (1118	<u> </u>		
	Spike		%	Duplicate	Duplicate	%
Element	Conc.	LCS	Recovery	LCS	% Recovery	RPD
Lead (Pb)	0.500	0.490	98.0%	0.488	97.6%	0.4%

ppm= parts per million = mg/l = milligram per liter

ND = Not Detected. Compound(s) may be present at concentrations below the detection limit.

Aug 2, 1999

**Date Reported** 



## EPA Method 6010 STLC (DI Water) Lead MS/MSD Recoveries

Attention:

Mr. Dave Smith

**IT** Corporation

11315 Sunrise Gold Circle Ste. A

Rancho Cordova, CA 95742

Date Sampled: Jun 18, 1999

Date Received: Jun 18, 1999

Date Analyzed: Aug 2, 1999

Invoice#:

11218CJUL99

Project #:

782983

Project Name:

e: CatTrans Rte. 12

Client ID:

MS/MSD

LAB ID:

11218C-001A

Matrix:

Leachate

Dilution:

1: 1

Units : (mg/L)

Element	Sample Conc.	Spike Conc.	MS	% Recovery	Duplicate MSD	Duplicate % Recovery	% RPD
Lead (Pb)	0.0265	0.500	0.597	114%	0.615	118%	3.1%

ppm= parts per million = mg/l = milligram per liter

ND = Not Detected. Compound(s) may be present at concentrations below the detection limit.

Note: If sample concentration is higher than spike concentration, recoveries may be either high or low.

Note: If sample concentration is lower than spike concentration, recoveries may be either high or low due to matrix inter

E. McKinney, Inorganics Manager

Aug 2, 1999

Date Reported



## **EPA Method 6010** STLC (DI Water) Lead

Attention:

Mr. Dave Smith

IT Corporation

11315 Sunrise Gold Circle Ste. A

Rancho Cordova, CA 95742

Date Sampled:

Jun 18, 1999

Date Received:

Jun 18, 1999

Date Analyzed:

Aug 2, 1999

Invoice#:

11218CJUL99

Project #:

782983

Project Name:

CatTrans Rte. 12

Matrix:

Leachate

Dilution:

1: 1

Analyte	LAB ID	Client ID	Concentration	Reporting Limit	Units
₋ead (Pb)	11218C-001A	12B18 - 0.15	0.026	0.010	mg/L
ead (Pb)	11218C-002A*	505B1 - 0.15	0.16	0.010	mg/L
_ead (Pb)	11218C-003A*	505B2 - 0.15	0.085	0.010	mg/L
Lead (Pb)	11218C-004A*	505B3 - 0.15	0.11	0.010	mg/L

ppm= parts per million = mg/l = milligram per liter

ND = Not Detected. Compound(s) may be present at concentrations below the detection limit.

Aug 2, 1999

Date Reported

<sup>\*</sup> Date sample and date receive on 6/21/1999.

07/29/99 THU 11:01 FAX 916 858 0605 IT Corporation/RC





A He	her of The IT Crossp
	FACSIMILE COVER SHEET
To:	Fric/Evan From: Dave Smith
Co	pany: IT CORPORATION 11315 Sunrise Gold Circle, Suite A
Far	Number: 562 0947 Rancho Cordova, CA 95742 Telephone: (916) 858-2350
Dat	Sent: $\frac{7/29/9}{9}$ ? FAX: (916) 858-2355
	Number of Pages (Including Cover Sheet)
	2
Co	ments: I need the four
CO.	Samples on the following
	page anglyzed by
	DI WET
	48 hr TAT
	please call to contirm.